Carpenter Contractors of America
190 Gillis Hill Rd
Fayetteville, NC 28306
Phone:(910) 875-7575
Fax :(910) 875-5419

Engineering Package

BUILDER : **ADAMS HOMES** CAROLINA SEASONS
PROJECT: **1L1-VARIOUS**
MODEL : **3130 ELEVATION B** **76391**
OPTIONS: **ALT:03=16'X14' COVERED PORCH**
LOT ALTS: **03/**
BLOCK# LOT# 5 UNIT#
REVISION DATE: **06/13/23** LOAD# **R/01**

Uplift Reaction Report

JOB #: 76391
Date: 6/28/2023

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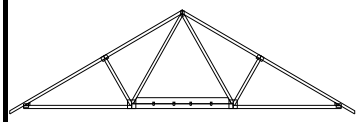
1-910-875-7575

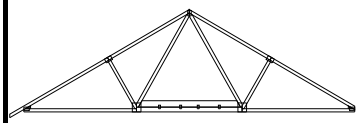
Builder/Division: ADAMS HOMES
Project Name: VARIOUS

CCA Proj #: 1L1
CCA Model: 3130B
Lot Alts: 03/



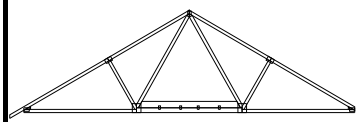
A1 Qty: (4) Span: 31'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1335.1	116
Brg. #2	00'03"08	1335.1	116



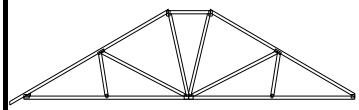
A1A Qty: (1) Span: 31'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1337.12	116
Brg. #2	00'03"08	1246.9	76



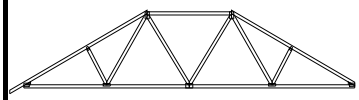
A1B Qty: (3) Span: 31'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1337.12	116
Brg. #2	00'03"00	1246.9	76



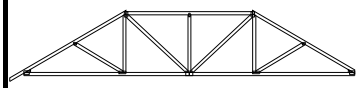
A2A Qty: (1) Span: 31'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1341.51	142
Brg. #2	00'03"00	1251.29	103



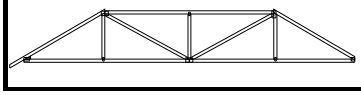
A3A Qty: (1) Span: 31'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1381.97	168
Brg. #2	00'03"00	1291.75	129



A4A Qty: (1) Span: 31'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1341.53	193
Brg. #2	00'03"00	1251.31	155



A5A Qty: (1) Span: 31'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1341.53	216
Brg. #2	00'03"00	1251.31	178

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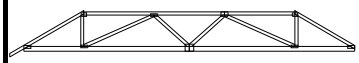
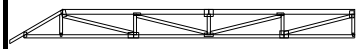


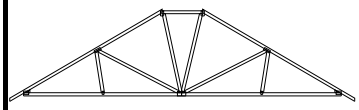
A6A Qty: (1) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1342.6	Uplift=	239
Brg. #2	Size= 00'03"00	Reaction=	1250.24	Uplift=	200



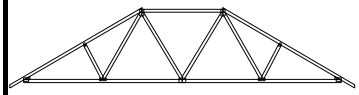
A7AG Qty: (2) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1942.67	Uplift=	136
Brg. #2	Size= 00'03"00	Reaction=	1843.26	Uplift=	118



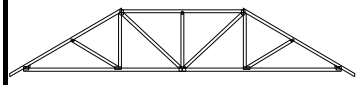
A2 Qty: (1) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1339.48	Uplift=	142
Brg. #2	Size= 00'03"08	Reaction=	1339.48	Uplift=	142



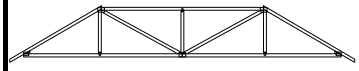
A3 Qty: (1) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1379.94	Uplift=	167
Brg. #2	Size= 00'03"08	Reaction=	1379.94	Uplift=	167



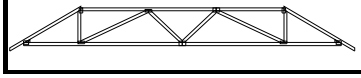
A4 Qty: (1) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1339.51	Uplift=	193
Brg. #2	Size= 00'03"08	Reaction=	1339.51	Uplift=	193



A5 Qty: (1) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1339.51	Uplift=	216
Brg. #2	Size= 00'03"08	Reaction=	1339.51	Uplift=	216



A6 Qty: (1) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1339.51	Uplift=	237
Brg. #2	Size= 00'03"08	Reaction=	1339.51	Uplift=	237

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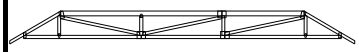
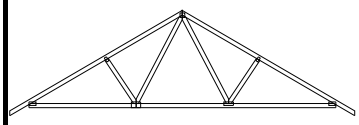


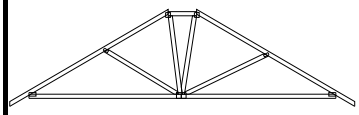
A7G Qty: (2) Span: 31'04"00

Brg. #1	Size= 00'03"08	Reaction=	1971.13	Uplift=	137
Brg. #2	Size= 00'03"08	Reaction=	1967.11	Uplift=	137



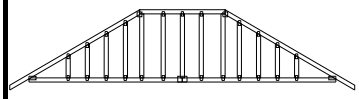
B1 Qty: (3) Span: 21'06"00

Brg. #1	Size= 00'03"08	Reaction=	946.17	Uplift=	122
Brg. #2	Size= 00'03"08	Reaction=	946.17	Uplift=	122



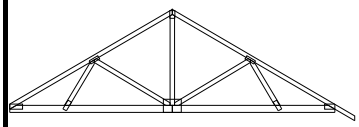
B2 Qty: (1) Span: 21'06"00

Brg. #1	Size= 00'03"08	Reaction=	946.14	Uplift=	140
Brg. #2	Size= 00'03"08	Reaction=	946.14	Uplift=	140



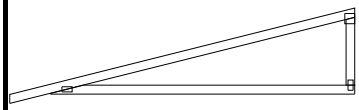
B3GE Qty: (1) Span: 21'06"00

Brg. #1	Size= 21'06"00	Reaction=	2506.29	Uplift=	542



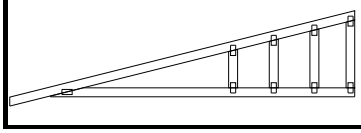
B1G Qty: (3) Span: 21'06"00

Brg. #1	Size= 00'03"08	Reaction=	7019.43	Uplift=	343
Brg. #2	Size= 00'03"08	Reaction=	6489.5	Uplift=	333



M1 Qty: (10) Span: 10'00"00

Brg. #1	Size= 00'03"08	Reaction=	498.47	Uplift=	200
Brg. #2	Size= 00'03"00	Reaction=	387.03	Uplift=	150



M1GE Qty: (2) Span: 10'00"00

Brg. #1	Size= 10'00"00	Reaction=	1117.23	Uplift=	521

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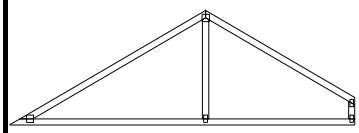
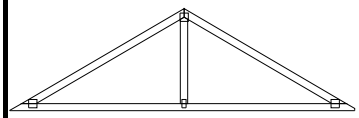


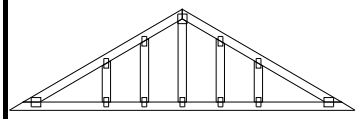
V1 Qty: (1) Span: 15'09"09

	Size	Reaction	Uplift
Brg. #1	15'09"09	1263.81	183



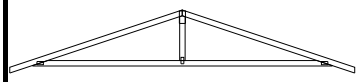
V2 Qty: (1) Span: 13'09"09

	Size	Reaction	Uplift
Brg. #1	13'09"09	1103.81	182



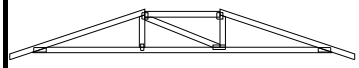
V3A Qty: (1) Span: 12'01"00

	Size	Reaction	Uplift
Brg. #1	12'01"00	1218.77	277



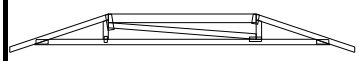
CP1 Qty: (3) Span: 16'00"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	717.59	179
Brg. #2	00'03"08	717.59	179



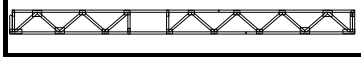
CP2 Qty: (1) Span: 16'00"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	717.59	199
Brg. #2	00'03"08	717.59	199



CP3 Qty: (1) Span: 16'00"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1035.54	11
Brg. #2	00'03"08	1034.25	11



SF1 Qty: (7) Span: 19'00"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	1028.9	0
Brg. #2	00'03"08	1048.6	0

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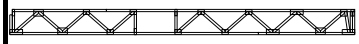
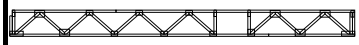
SF2 Qty: (1) Span: 19'00"00

	Size	Reaction	Uplift
Brg. #1	12'00"00	1703.23	0
Brg. #2	07'00"00	1122.35	0



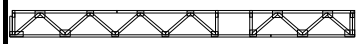
SF3 Qty: (8) Span: 18'00"08

	Size	Reaction	Uplift
Brg. #1	00'03"08	976.18	0
Brg. #2	00'03"00	995.9	0



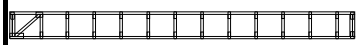
SF4 Qty: (7) Span: 17'04"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	937.21	0
Brg. #2	00'03"00	956.95	0



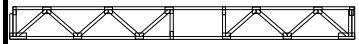
SF5 Qty: (1) Span: 17'02"04

	Size	Reaction	Uplift
Brg. #1	00'03"08	929.19	0
Brg. #2	00'03"00	948.93	0



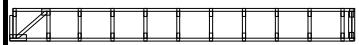
SF6 Qty: (1) Span: 17'00"08

	Size	Reaction	Uplift
Brg. #1	17'00"08	2550.57	0



SF7 Qty: (8) Span: 14'00"00

	Size	Reaction	Uplift
Brg. #1	00'03"08	753.84	0
Brg. #2	00'03"08	773.66	0



SF8 Qty: (1) Span: 14'00"00

	Size	Reaction	Uplift
Brg. #1	14'00"00	2077.25	0

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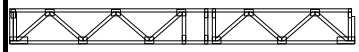
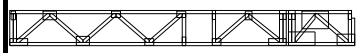
SF9 Qty: (3) Span: 13'00"00

	Size	Reaction	Uplift
Brg. #1	00'03"00	718.68	0
Brg. #2	00'03"08	698.82	0



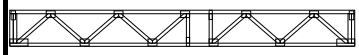
SF10 Qty: (2) Span: 13'00"00

	Size	Reaction	Uplift
Brg. #1	00'03"00	962.62	0
Brg. #2	00'03"08	1788.22	0



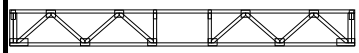
SF11 Qty: (3) Span: 12'08"08

	Size	Reaction	Uplift
Brg. #1	00'03"00	698.96	0
Brg. #2	00'03"00	698.96	0



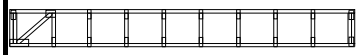
SF12 Qty: (7) Span: 12'07"08

	Size	Reaction	Uplift
Brg. #1	00'03"08	694.37	0
Brg. #2	00'03"08	694.37	0



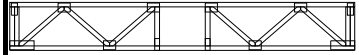
SF13 Qty: (1) Span: 12'04"00

	Size	Reaction	Uplift
Brg. #1	12'04"00	1845.89	0



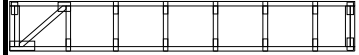
SF14 Qty: (10) Span: 09'06"04

	Size	Reaction	Uplift
Brg. #1	00'03"00	523.65	0
Brg. #2	00'03"08	523.65	0



SF15 Qty: (2) Span: 09'02"12

	Size	Reaction	Uplift
Brg. #1	09'02"12	1381.3	0



Uplift Reaction Report

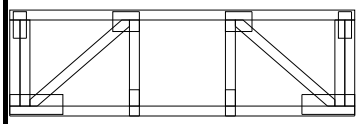
JOB #: 76391
Date: 6/28/2023

Carpenter Contractors
190 Gillis Hill Rd
Fayetteville, North Carolina 28306

1-910-875-7575

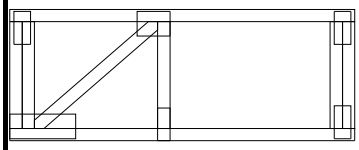
Builder/Division: ADAMS HOMES
Project Name: VARIOUS

CCA Proj #: 1L1
CCA Model: 3130B
Lot Alts: 03/



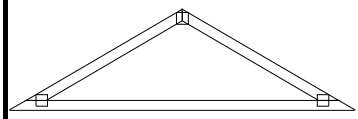
SF16 Qty: (1) Span: 04'04"00

Brg. #1	Size= 00'03"08	Reaction=	238.33	Uplift=	0
Brg. #2	Size= 00'03"00	Reaction=	238.33	Uplift=	0



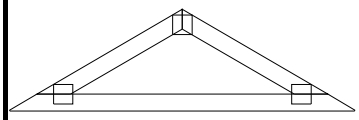
SF17 Qty: (1) Span: 03'06"00

Brg. #1	Size= 00'03"00	Reaction=	193.33	Uplift=	0
Brg. #2	Size= 00'03"00	Reaction=	192.5	Uplift=	0



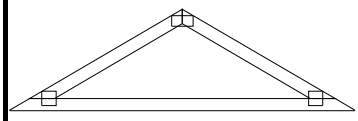
V3 Qty: (1) Span: 09'11"02

Brg. #1	Size= 09'11"02	Reaction=	794.28	Uplift=	176



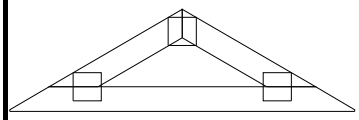
V4 Qty: (1) Span: 05'11"02

Brg. #1	Size= 05'11"02	Reaction=	474.29	Uplift=	140



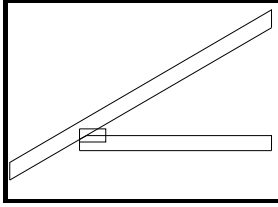
V3B Qty: (1) Span: 08'01"00

Brg. #1	Size= 08'01"00	Reaction=	646.67	Uplift=	155



V3C Qty: (1) Span: 04'01"00

Brg. #1	Size= 04'01"00	Reaction=	326.67	Uplift=	79



EJ1 Qty: (27) Span: 03'08"00

Brg. #1	Size= 00'03"08	Reaction=	253.08	Uplift=	107
Brg. #2	Size= 00'01"08	Reaction=	68.27	Uplift=	0
Brg. #3	Size= 00'01"08	Reaction=	90.42	Uplift=	81

Uplift Reaction Report

JOB #: 76391
Date: 6/28/2023

Carpenter Contractors
190 Gillis Hill Rd
Fayetteville, North Carolina 28306

1-910-875-7575

Builder/Division: ADAMS HOMES
Project Name: VARIOUS

CCA Proj #: 1L1
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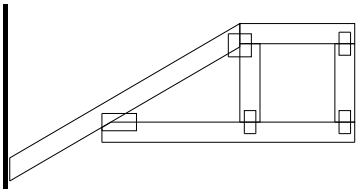
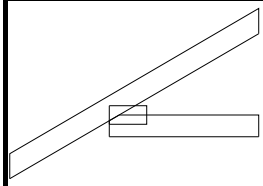
Lot Alts: 03/



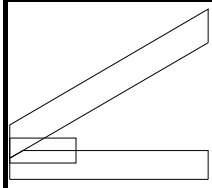
EJ2 Qty: (3) Span: 03'08"00

Brg. #1	Size= 00'03"08	Reaction=	282.42	Uplift=	28
Brg. #2	Size= 00'03"00	Reaction=	162.95	Uplift=	6



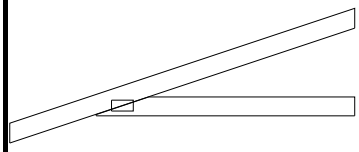
EJ3 Qty: (2) Span: 02'00"00

Brg. #1	Size= 00'03"08	Reaction=	201.57	Uplift=	113
Brg. #2	Size= 00'01"08	Reaction=	35.18	Uplift=	0
Brg. #3	Size= 00'01"08	Reaction=	30.69	Uplift=	46



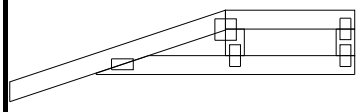
EJ3A Qty: (1) Span: 02'00"00

Brg. #1	Size= 00'03"08	Reaction=	82.74	Uplift=	9
Brg. #2	Size= 00'01"08	Reaction=	37.98	Uplift=	0
Brg. #3	Size= 00'01"08	Reaction=	56	Uplift=	64



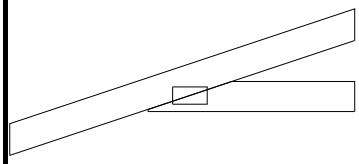
EJA Qty: (5) Span: 04'00"00

Brg. #1	Size= 00'03"08	Reaction=	269.73	Uplift=	186
Brg. #2	Size= 00'01"08	Reaction=	68.32	Uplift=	0
Brg. #3	Size= 00'01"08	Reaction=	93.61	Uplift=	87



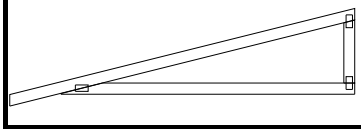
EJB Qty: (2) Span: 04'00"00

Brg. #1	Size= 00'03"08	Reaction=	296.71	Uplift=	13
Brg. #2	Size= 00'03"00	Reaction=	162.59	Uplift=	0



EJC Qty: (2) Span: 02'00"00

Brg. #1	Size= 00'03"08	Reaction=	209.43	Uplift=	172
Brg. #2	Size= 00'01"08	Reaction=	27.37	Uplift=	0
Brg. #3	Size= 00'01"08	Reaction=	26.31	Uplift=	33



M2 Qty: (7) Span: 07'08"00

Brg. #1	Size= 00'03"08	Reaction=	407.35	Uplift=	209
Brg. #2	Size= 00'03"00	Reaction=	291.48	Uplift=	137

Uplift Reaction Report

JOB #: 76391
Date: 6/28/2023

Carpenter Contractors
190 Gillis Hill Rd
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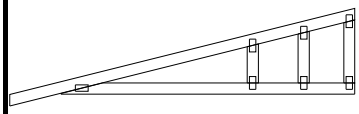
1-910-875-7575

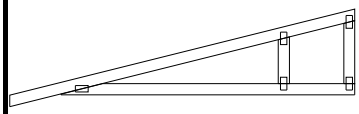
Builder/Division: ADAMS HOMES
Project Name: VARIOUS

CCA Proj #: 1L1
CCA Model: 3130B
Lot Alts: 03/



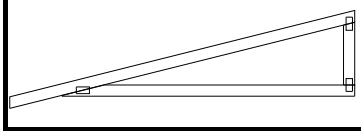
M2GE Qty: (1) Span: 07'08"00

Brg. #1	Size= 07'08"00	Reaction=	877.6	Uplift=	507



M3 Qty: (3) Span: 07'08"00

Brg. #1	Size= 00'03"00	Reaction=	297.96	Uplift=	160
Brg. #2	Size= 00'03"08	Reaction=	441.81	Uplift=	204
Brg. #3	Size= 00'03"00	Reaction=	-76.56	Uplift=	25



M4 Qty: (1) Span: 07'06"04

Brg. #1	Size= 00'03"08	Reaction=	401.7	Uplift=	209
Brg. #2	Size= 00'03"00	Reaction=	285.47	Uplift=	136

ABCD Engineering, PLLC NC COA 0838

06/13/2023

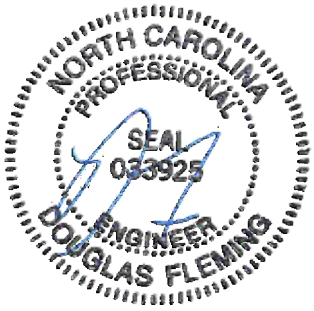
Alpine, an ITW Company
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025
Phone: (800)755-6001
www.alpineitw.com

Site Information:	Page 1:
Customer: Carpenter Contractors of America	*Job Number:* 76391
Job Description: .1L1 ,3130B ,03/ ,R/01	
Address:	

Job Engineering Criteria:	
Design Code: IRC 2018	*IntelliVIEW Version:* 21.02.01 *JRef #:* 1XQI89760009
Wind Standard: ASCE 7-16 *Wind Speed (mph):* 115 *Building Type:* Closed	*Design Loading (psf):* 40.00, 55.00

This package contains general notes pages, 59 truss drawing(s) and 7 detail(s).

Item	Drawing Number	Truss	Item	Drawing Number	Truss
1	164.23.1355.09350	A1	2	164.23.1355.05213	A1A
3	164.23.1355.03717	A1B	4	164.23.1355.00720	A2A
5	164.23.1354.57623	A3A	6	164.23.1354.54487	A4A
7	164.23.1354.51540	A5A	8	164.23.1354.48030	A6A
9	164.23.1354.46513	A7AG	10	164.23.1355.02240	A2
11	164.23.1354.59160	A3	12	164.23.1354.56043	A4
13	164.23.1354.52990	A5	14	164.23.1354.49543	A6
15	164.23.1354.45010	A7G	16	164.23.1354.43593	B1
17	164.23.1354.40317	B2	18	164.23.1354.39007	B3GE
19	164.23.1354.41727	B1G	20	164.23.1354.25610	M1
21	164.23.1354.24463	M1GE	22	164.23.1353.55020	V1
23	164.23.1353.53860	V2	24	164.23.1353.51493	V3A
25	164.23.1354.37660	CP1	26	164.23.1354.36390	CP2
27	164.23.1354.35083	CP3	28	164.23.1354.18193	SF1
29	164.23.1354.05937	SF2	30	164.23.1354.04713	SF3
31	164.23.1354.03173	SF4	32	164.23.1354.01640	SF5
33	164.23.1354.00140	SF6	34	164.23.1353.59003	SF7
35	164.23.1353.57613	SF8	36	164.23.1353.56440	SF9
37	164.23.1354.16610	SF10	38	164.23.1354.14983	SF11
39	164.23.1354.13530	SF12	40	164.23.1354.12090	SF13
41	164.23.1354.10693	SF14	42	164.23.1354.09377	SF15
43	164.23.1354.08220	SF16	44	164.23.1354.07100	SF17
45	164.23.1353.52653	V3	46	164.23.1353.47600	V4
47	164.23.1353.50257	V3B	48	164.23.1353.49137	V3C
49	164.23.1354.33793	EJ1	50	164.23.1354.32577	EJ2



ABCD Engineering, PLLC NC COA 0838

06/13/2023

Alpine, an ITW Company
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025
Phone: (800)755-6001
www.alpineitw.com

Site Information:	**Page 2:**
Customer: Carpenter Contractors of America	*Job Number:* 76391
Job Description: .1L1 ,3130B ,03/ ,R/01	
Address:	

Item	Drawing Number	Truss
51	164.23.1354.31390	EJ3
53	164.23.1354.29070	EJA
55	164.23.1354.26767	EJC
57	164.23.1354.22120	M2GE
59	164.23.1354.19313	M4
61	A11530ENC160118	
63	GBLLETIN0118	
65	DEFLCAMB1014	

Item	Drawing Number	Truss
52	164.23.1354.30207	EJ3A
54	164.23.1354.27917	EJB
56	164.23.1354.23233	M2
58	164.23.1354.20923	M3
60	VALTN160118	
62	GABRST160118	
64	STRBRIBR1014	
66	A11515ENC160118	

General Notes

Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:
The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

Temporary Lateral Restraint and Bracing:
Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

Permanent Lateral Restraint and Bracing:
The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed, and detailed by the Building Designer.

Connector Plate Information:
Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at www.icc-es.org.

Fire Retardant Treated Lumber:
Fire retardant treated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Fire retardant treated lumber may be more brittle than untreated lumber. Special handling care must be taken to prevent breakage during all handling activities.

General Notes (continued)

Key to Terms:
Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

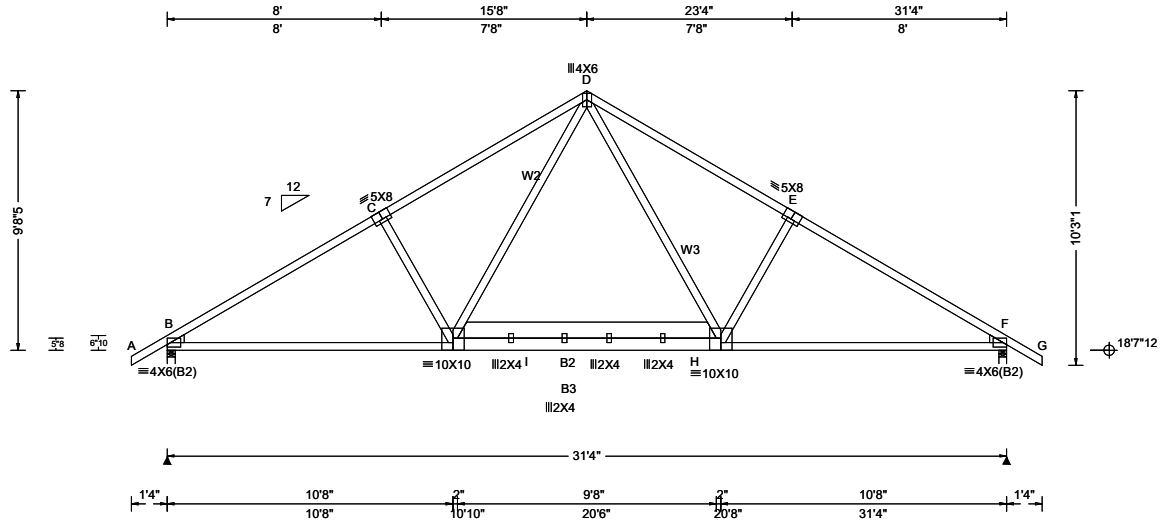
BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-DB = D-Blaze Fire Retardant Treated lumber.
FRT-DC = Dricon Fire Retardant Treated lumber.
FRT-FP = FirePRO Fire Retardant Treated lumber.
FRT-FL = FlamePRO Fire Retardant Treated lumber.
FRT-FT = FlameTech Fire Retardant Treated lumber.
FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.
FRT-PR = ProWood Fire Retardant Treated lumber.
g = green lumber.
HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.
HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.
HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.
Ic = Incised lumber.
FJ = Finger Jointed lumber.
L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.
L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.
Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.
Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for all load cases.
Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for all load cases.
Max Web CSI= Maximum bending and axial Combined Stress Index for Webs for all load cases.
NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.
PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.
PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds
PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.
PP = Panel Point.
R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).
Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).
TCDL = Top Chord standard design Dead Load in pounds per square foot.
TCLL = Top Chord standard design Live Load in pounds per square foot.
U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.
VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.
VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.
VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.
W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.
Uppercase Acronyms not explained above are as defined in TPI 1.

References:

1. AWC: American Wood Council; 222 Catoctin Circle SE, Suite 201; Leesburg, VA 20175; www.awc.org.
2. ICC: International Code Council; www.iccsafe.org.
3. Alpine, a division of ITW Building Components Group Inc.: 155 Harlem Ave, North Building, 4th Floor, Glenview, IL 60025; www.alpineitw.com.
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www. sbcacomponents.com.

SEQN: 61814 COMN FROM: WEB	Ply: 1 Qty: 4	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A1		Cust: R 8976 JRef: 1XQI89760009 T7 DrwNo: 164.23.1355.09350 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 23.38 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.091	I	999	360
VERT(CL): 0.179	I	999	240
HORZ(LL): 0.032	F	-	-
HORZ(TL): 0.062	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.774
Max BC CSI: 0.487
Max Web CSI: 0.268

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1335	/-	/-	/722	/115	/165
F	1335	/-	/-	/722	/115	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
F Brg Wid = 3.5 Min Req = 1.6 (Truss)
Bearings B & F Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	169	-1980	D - E	209	-1731
C - D	208	-1731	E - F	169	-1980

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1610	-45	H - F	1610	-48

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - I	169	-431	D - H	753	-45
I - D	688	-44	H - E	169	-431

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP SS; B2 2x6 SP #2;
B3 2x8 SP #2;
Webs: 2x4 SP #3; W2,W3 2x4 SP #2;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Bottom chord checked for 10.00 psf non-concurrent live load.

Live loads applied in combination per ASCE 7 sec. 2.4.1 use 0.75 factor for multiple live loads.

Truss designed for unbalanced snow loads.

Truss supports 400# mech unit; unit centered at 15-8-0; supported by BC; unit width 4-0-0; supported by 2 trusses.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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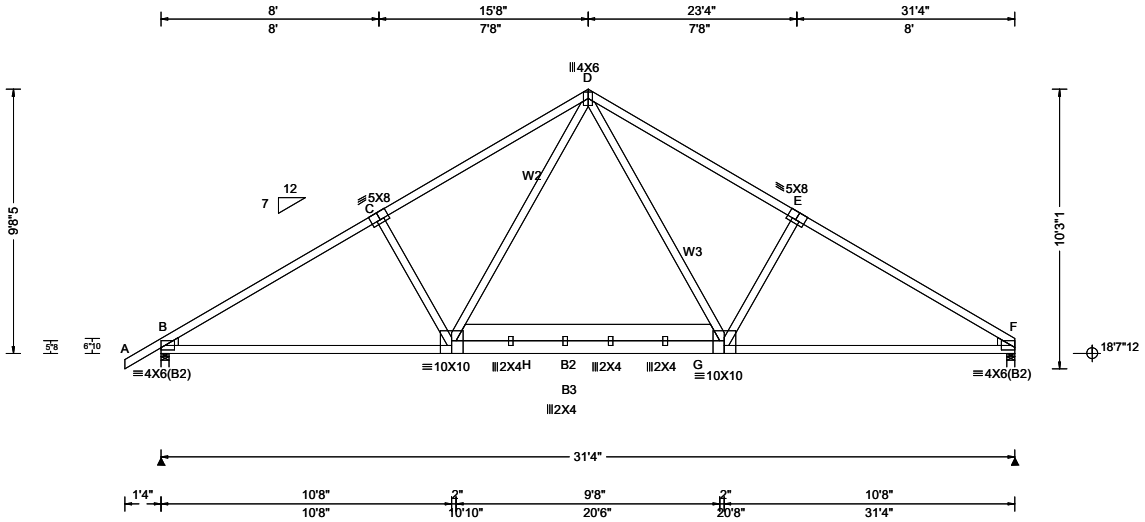
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61815 COMN FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A1A		Cust: R 8976 JRef: 1XQI89760009 T10 DrwNo: 164.23.1355.05213 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 23.38 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.088	H	999	360
VERT(CL): 0.176	H	999	240
HORZ(LL): 0.030	F	-	-
HORZ(TL): 0.059	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.788
Max BC CSI: 0.491
Max Web CSI: 0.272

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1337	/-	/-	/723	/116	/156
F	1247	/-	/-	/669	/76	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
F Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B & F Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	172	-1984	D - E	213	-1742
C - D	211	-1735	E - F	174	-1992

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - H	1614	-70	G - F	1623	-73

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - H	169	-431	D - G	762	-48
H - D	688	-44	G - E	170	-438

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP SS; B2 2x6 SP #2;
B3 2x8 SP #2;
Webs: 2x4 SP #3; W2,W3 2x4 SP #2;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Bottom chord checked for 10.00 psf non-concurrent live load.

Live loads applied in combination per ASCE 7 sec. 2.4.1 use 0.75 factor for multiple live loads.

Truss designed for unbalanced snow loads.

Truss supports 400# mech unit; unit centered at 15-8-0; supported by BC; unit width 4-0-0; supported by 2 trusses.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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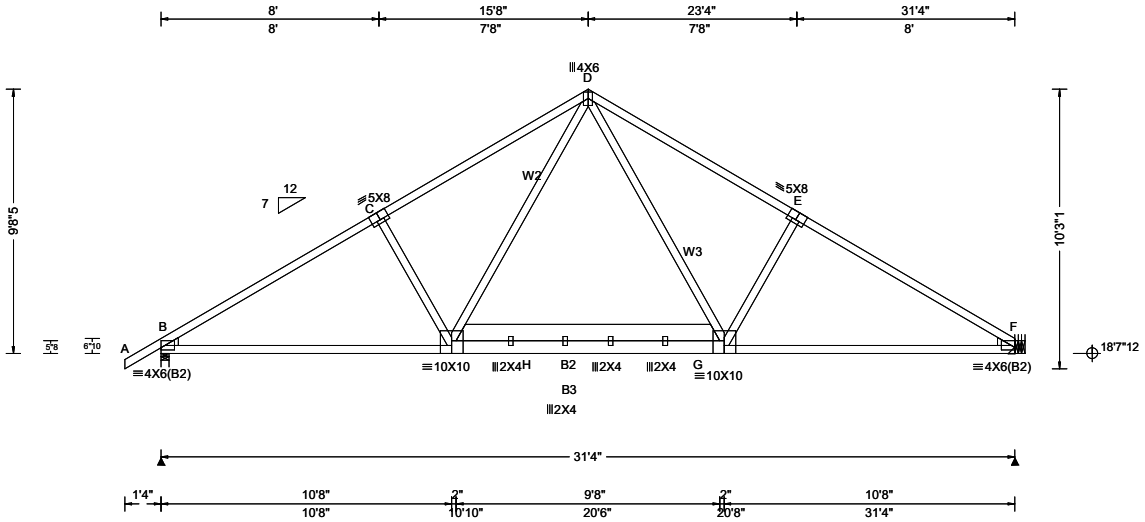
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61816 COMN FROM: WEB	Ply: 1 Qty: 3	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A1B		Cust: R 8976 JRef: 1XQI89760009 T15 DrwNo: 164.23.1355.03717 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 23.38 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.088 H	999	360
VERT(CL):	0.176 H	999	240
HORZ(LL):	0.030 F	-	-
HORZ(TL):	0.059 F	-	-

Creep Factor: 2.0
Max TC CSI: 0.788
Max BC CSI: 0.491
Max Web CSI: 0.272

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1337	/-	/-	/723	/116	/156
F	1247	/-	/-	/669	/76	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
F Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	172	-1984	D - E	213	-1742
C - D	211	-1735	E - F	174	-1992

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - H	1614	-70	G - F	1623	-73

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - H	169	-431	D - G	762	-48
H - D	688	-44	G - E	170	-438

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP SS; B2 2x6 SP #2;
B3 2x8 SP #2;
Webs: 2x4 SP #3; W2,W3 2x4 SP #2;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Bottom chord checked for 10.00 psf non-concurrent live load.

Live loads applied in combination per ASCE 7 sec. 2.4.1 use 0.75 factor for multiple live loads.

Truss designed for unbalanced snow loads.

Truss supports 400# mech unit; unit centered at 15-8-0; supported by BC; unit width 4-0-0; supported by 2 trusses.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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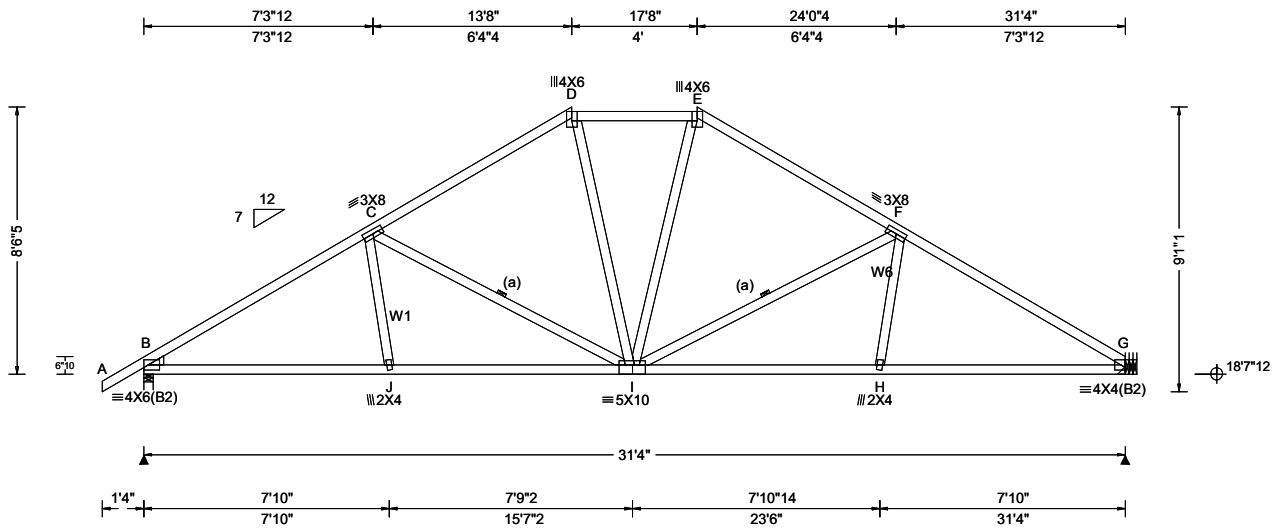
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61817 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A2A		Cust: R 8976 JRef: 1XQI89760009 T20 DrwNo: 164.23.1355.00720 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 22.80 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.093 I	999	360
VERT(CL):	0.185 I	999	240
HORZ(LL):	0.049 G	-	-
HORZ(TL):	0.097 G	-	-

Creep Factor: 2.0
Max TC CSI: 0.695
Max BC CSI: 0.745
Max Web CSI: 0.240

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1342	/-	/-	/727	/142	/137
G	1251	/-	/-	/674	/102	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
G Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	200	- 1955	E - F	225	- 1393
C - D	225	- 1399	F - G	202	- 1965
D - E	224	- 1206			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	1589	- 101	I - H	1619	- 93
J - I	1606	- 91	H - G	1601	- 104

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - I	85	- 546	I - E	384	- 3
D - I	384	- 2	I - F	88	- 566

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #2; W1,W6 2x4 SP #3;
Lt Wedge: 2x4 SP #3;

Bracing

(a) 1X4 #3SRB or better continuous lateral restraint to be equally spaced. Attach with (2) 8d Box or Gun nails(0.113"x2.5",min.). Restraint material to be supplied and attached at both ends to a suitable support by erection contractor.

(a) or scab reinforcement may be used in lieu of CLR restraint. substitute (1) scab for (1) CLR and (2) scabs for (2) CLR'S where shown. Scab reinforcement to be same size, species, grade, and 80% length of web member. Attach with 0.128x3" gun nails @ 6" oc.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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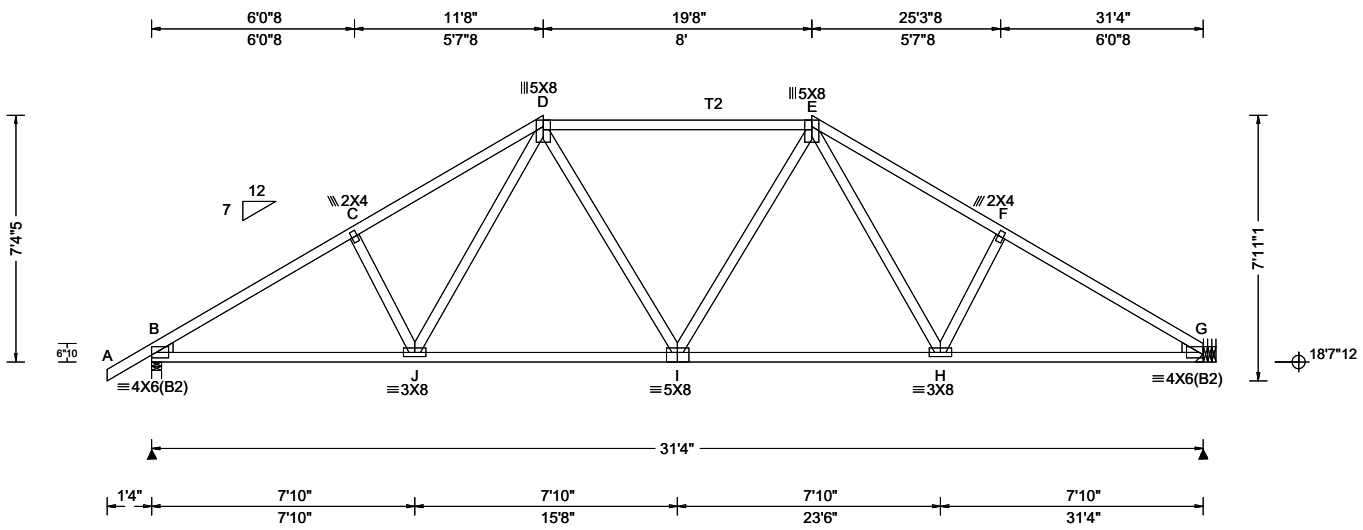
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61818 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A3A		Cust: R 8976 JRef: 1XQI89760009 T25 DrwNo: 164.23.1354.57623 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 22.21 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.103 I	999	360
VERT(CL):	0.199 I	999	240
HORZ(LL):	0.053 G	-	-
HORZ(TL):	0.102 G	-	-

Creep Factor: 2.0
Max TC CSI: 0.778
Max BC CSI: 0.888
Max Web CSI: 0.206

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1382	/-	/-	/728	/167	/118
G	1292	/-	/-	/675	/128	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
G Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	251	-2059	E - F	294	-1900
C - D	291	-1888	F - G	254	-2070
D - E	261	-1390			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	1689	-155	I - H	1324	-106
J - I	1322	-105	H - G	1703	-159

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
J - D	482	-11	E - H	497	-14

Lumber

Top chord: 2x4 SP #2; T2 2x4 SP SS;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Bottom chord checked for 10.00 psf non-concurrent live load.

Live loads applied in combination per ASCE 7 sec. 2.4.1 use 0.75 factor for multiple live loads.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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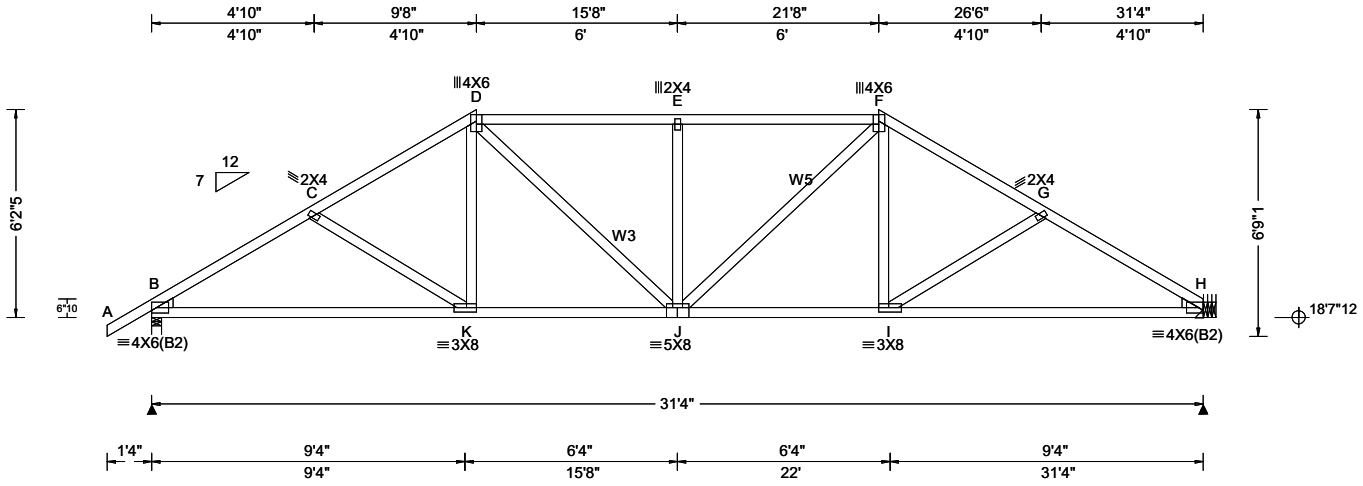
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61819 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A4A		Cust: R 8976 JRef: 1XQI89760009 T17 DrwNo: 164.23.1354.54487 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 21.63 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.111	E	999	360
VERT(CL): 0.221	E	999	240
HORZ(LL): 0.050	H	-	-
HORZ(TL): 0.100	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.625
Max BC CSI: 0.851
Max Web CSI: 0.269

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1342	/-	/-	/727	/193	/99
H	1251	/-	/-	/674	/154	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
H Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	315	- 1979	E - F	377	- 1730
C - D	307	- 1750	F - G	309	- 1758
D - E	377	- 1730	G - H	319	- 1993

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - K	1626	- 219	J - I	1458	- 153
K - J	1453	- 151	I - H	1643	- 223

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - J	383	- 113	J - F	377	- 110
E - J	197	- 412			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; W3,W5 2x4 SP #2;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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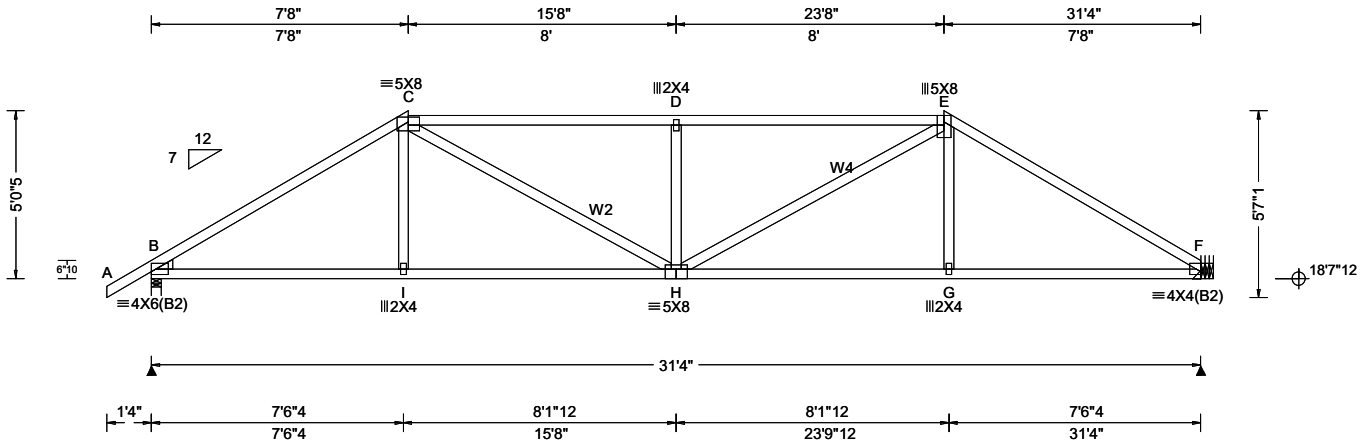
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61820 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A5A		Cust: R 8976 JRef: 1XQI89760009 T22 DrwNo: 164.23.1354.51540 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 21.05 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.136	D	999	360
VERT(CL): 0.270	D	999	240
HORZ(LL): 0.048	F	-	-
HORZ(TL): 0.094	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.799
Max BC CSI: 0.720
Max Web CSI: 0.271

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1342	/-	/-	/724	/216	/81
F	1251	/-	/-	/671	/178	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
F Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	341	-1968	D - E	484	-2216
C - D	484	-2216	E - F	346	-1977

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1603	-220	H - G	1609	-228
I - H	1599	-222	G - F	1613	-225

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - H	712	-180	H - E	700	-176
D - H	255	-536			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; W2,W4 2x4 SP #2;
Lt Wedge: 2x4 SP #3;

Loading

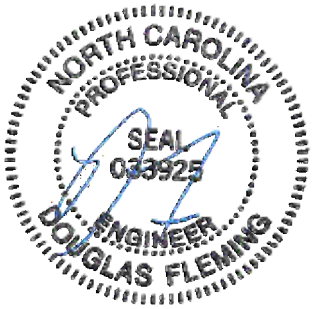
Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.



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ABCD Engineering, PLLC NC COA 0838

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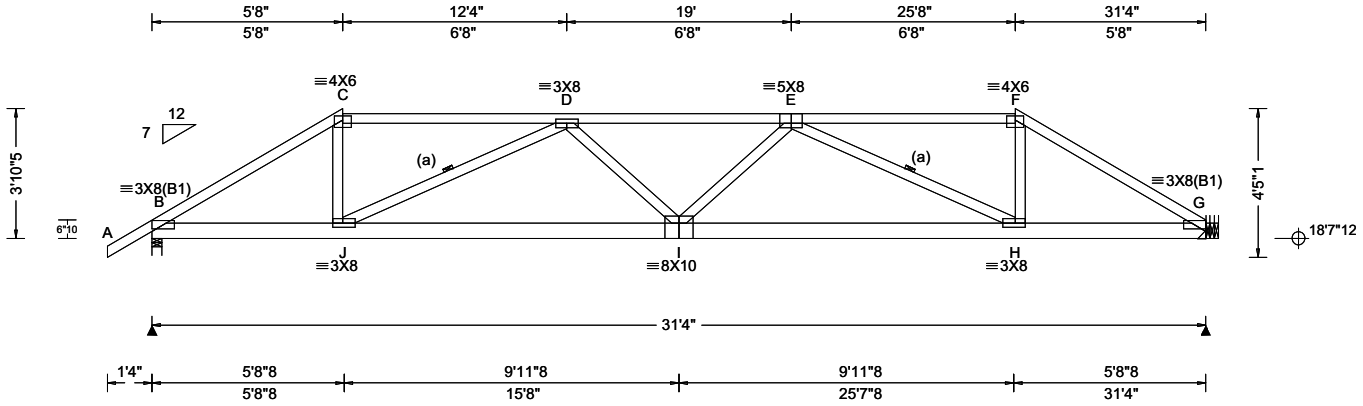
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61831 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A6A		Cust: R 8976 JRef: 1XQI89760009 T21 DrwNo: 164.23.1354.48030 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 20.46 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.160	I	999	360
VERT(CL): 0.318	I	999	240
HORZ(LL): 0.039	G	-	-
HORZ(TL): 0.077	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.607
Max BC CSI: 0.643
Max Web CSI: 0.413

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1343	/-	/-	/718	/238	/63
G	1250	/-	/-	/665	/199	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
G Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	364	-2035	E - F	354	-1721
C - D	344	-1696	F - G	375	-2059
D - E	575	-2893			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	1694	-259	I - H	2784	-550
J - I	2780	-547	H - G	1718	-270

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - J	654	-51	E - H	315	-1191
J - D	323	-1214	F - H	656	-50

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x6 SP #2;
Webs: 2x4 SP #3;

Bracing

(a) 1X4 #3SRB or better continuous lateral restraint to be equally spaced. Attach with (2) 8d Box or Gun nails(0.113"x2.5",min.). Restraint material to be supplied and attached at both ends to a suitable support by erection contractor.

(a) or scab reinforcement may be used in lieu of CLR restraint. substitute (1) scab for (1) CLR and (2) scabs for (2) CLR'S where shown. Scab reinforcement to be same size, species, grade, and 80% length of web member. Attach with 0.128x3" gun nails @ 6" oc.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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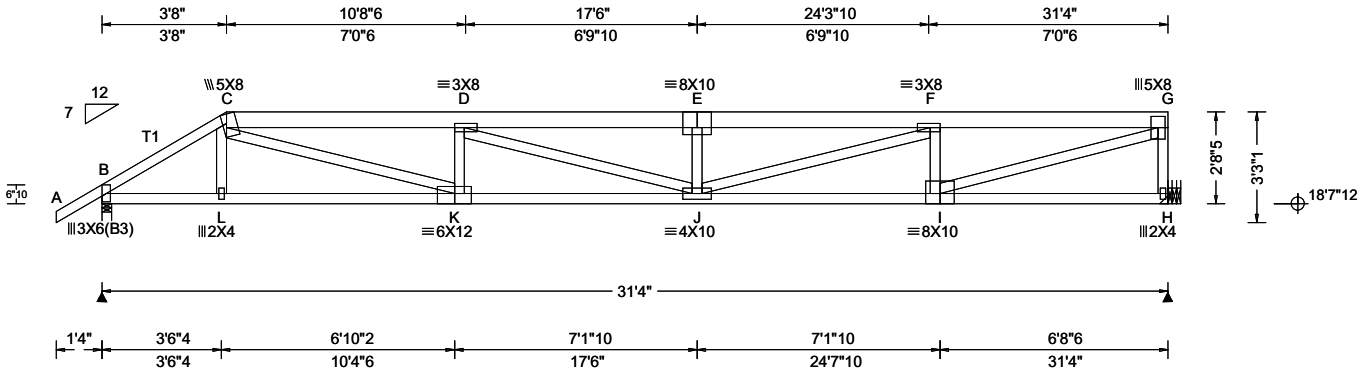
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61833 HIPM FROM: WEB	Ply: 2 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A7AG		Cust: R 8976 JRef: 1XQI89760009 T18 DrwNo: 164.23.1354.46513 / DF 06/13/2023

2 Complete Trusses Required



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 0.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 19.88 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.240	E	999	360
VERT(CL): 0.475	E	789	240
HORZ(LL): 0.044	C	-	-
HORZ(TL): 0.088	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.498
Max BC CSI: 0.927
Max Web CSI: 0.951

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1943	/-	/-	/-	/135	/-
H	1843	/-	/-	/-	/118	/-

Wind reactions based on MWFRS
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
H Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	92	-1522	E - F	201	-3167
C - D	179	-2837	F - G	138	-2187
D - E	201	-3167			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - L	1274	-74	K - J	2885	-187
L - K	1268	-76	J - I	2261	-149

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - K	1661	-109	F - I	84	-592
K - D	70	-391	I - G	2297	-146
J - F	957	-55	G - H	71	-862

Lumber

Top chord: 2x6 SP #2; T1 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Nailnote

Nail Schedule:0.128"x3" nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

Special Loads

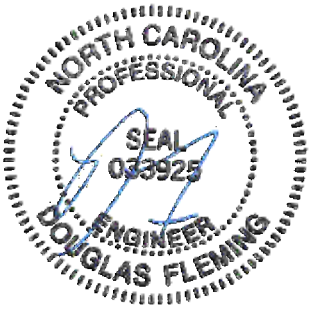
------(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)
TC: From 60 plf at -1.33 to 60 plf at 2.06
TC: From 30 plf at 2.06 to 30 plf at 31.33
BC: From 5 plf at -1.33 to 5 plf at 0.00
BC: From 10 plf at 0.00 to 10 plf at 31.33
TC: 90 lb Conc. Load at 4.06, 6.06, 8.06,10.06 12.06,14.06,16.06,18.06,20.06,22.06,24.06,26.06 28.06,30.06
BC: 163 lb Conc. Load at 2.06
BC: 68 lb Conc. Load at 4.06, 6.06, 8.06,10.06 12.06,14.06,16.06,18.06,20.06,22.06,24.06,26.06 28.06,30.06

Wind

Wind loads and reactions based on MWFRS.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.



06/13/2023
ABCD Engineering, PLLC NC COA 0838

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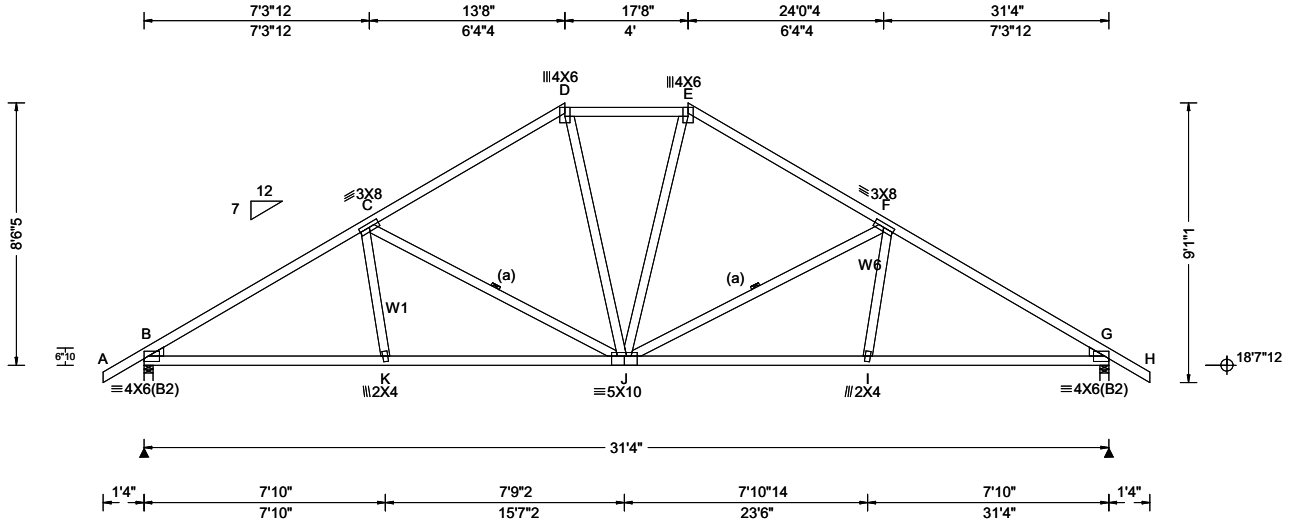
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61822 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A2		Cust: R 8976 JRef: 1XQI89760009 T49 DrwNo: 164.23.1355.02240 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 22.80 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.095	J	999	360
VERT(CL): 0.188	J	999	240
HORZ(LL): 0.051	G	-	-
HORZ(TL): 0.101	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.695
Max BC CSI: 0.743
Max Web CSI: 0.234

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1339	/-	/-	/727	/141	/146
G	1339	/-	/-	/727	/141	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
G Brg Wid = 3.5 Min Req = 1.6 (Truss)
Bearings B & G Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	199	- 1951	E - F	223	- 1389
C - D	224	- 1395	F - G	199	- 1952
D - E	223	- 1202			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - K	1586	- 77	J - I	1604	- 69
K - J	1603	- 66	I - G	1586	- 80

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - J	86	- 547	J - E	382	- 2
D - J	384	- 2	J - F	85	- 552

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #2; W1,W6 2x4 SP #3;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Bracing

(a) 1X4 #3SRB or better continuous lateral restraint to be equally spaced. Attach with (2) 8d Box or Gun nails(0.113"x2.5",min.). Restraint material to be supplied and attached at both ends to a suitable support by erection contractor.

(a) or scab reinforcement may be used in lieu of CLR restraint. substitute (1) scab for (1) CLR and (2) scabs for (2) CLR'S where shown. Scab reinforcement to be same size, species, grade, and 80% length of web member. Attach with 0.128x3" gun nails @ 6" oc.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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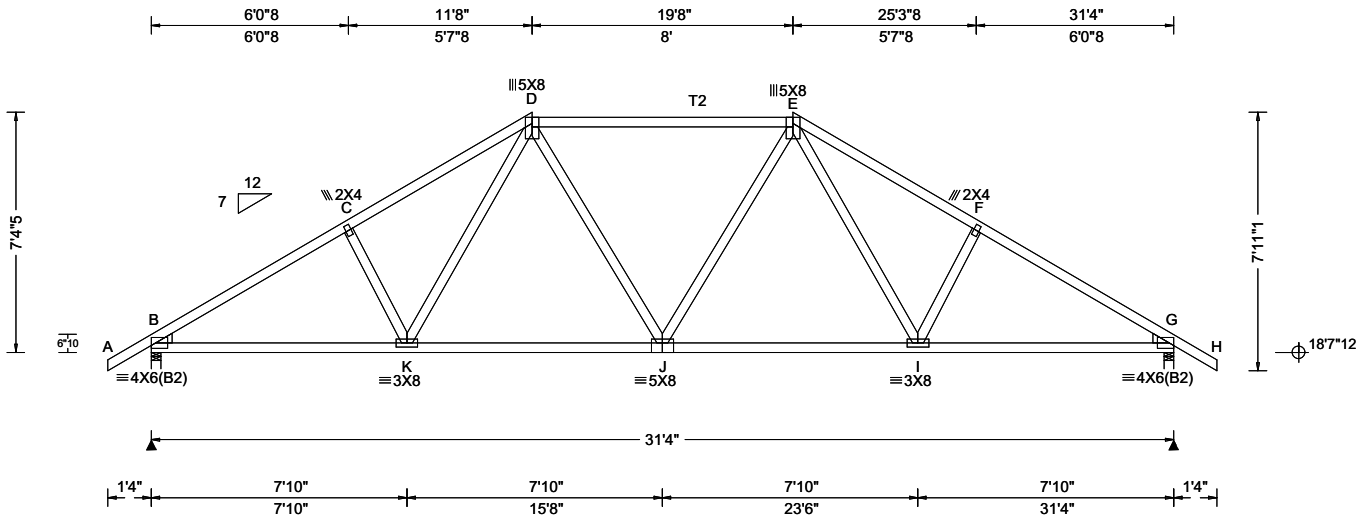
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61823 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A3		Cust: R 8976 JRef: 1XQI89760009 T12 DrwNo: 164.23.1354.59160 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 22.21 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.105 J	999	360
VERT(CL):	0.201 J	999	240
HORZ(LL):	0.055 G	-	-
HORZ(TL):	0.105 G	-	-

Creep Factor: 2.0
Max TC CSI: 0.777
Max BC CSI: 0.888
Max Web CSI: 0.200

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1380	/-	/-	/728	/167	/127
G	1380	/-	/-	/728	/167	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
G Brg Wid = 3.5 Min Req = 1.6 (Truss)
Bearings B & G Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	250	-2055	E - F	290	-1884
C - D	290	-1884	F - G	250	-2055
D - E	260	-1387			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - K	1686	-131	J - I	1318	-84
K - J	1318	-83	I - G	1686	-134

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
K - D	482	-12	E - I	482	-12

Lumber

Top chord: 2x4 SP #2; T2 2x4 SP SS;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Bottom chord checked for 10.00 psf non-concurrent live load.

Live loads applied in combination per ASCE 7 sec. 2.4.1 use 0.75 factor for multiple live loads.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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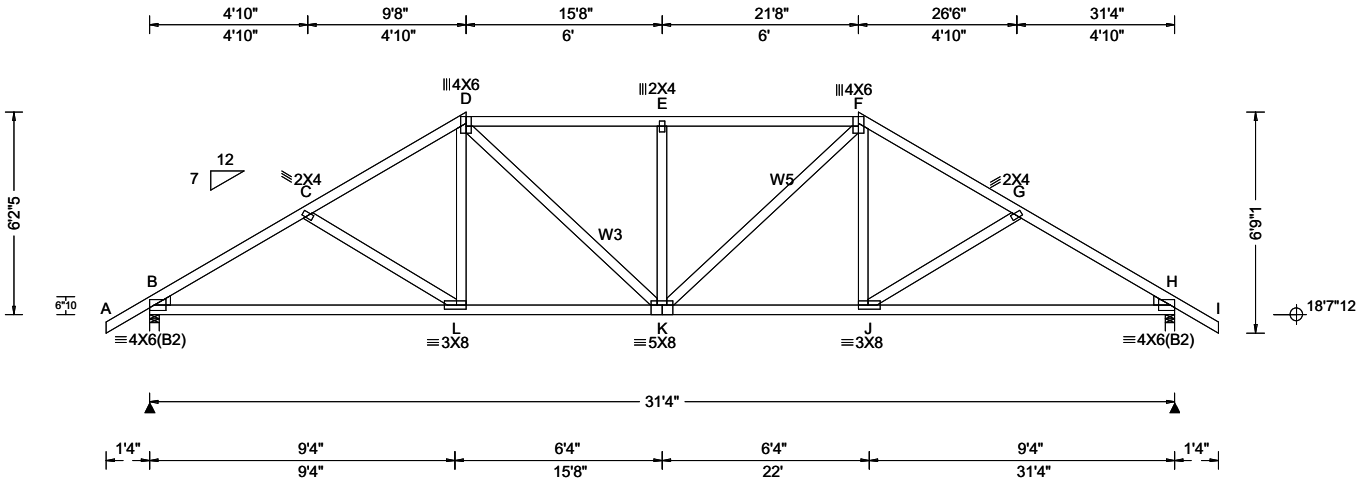
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61824 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A4		Cust: R 8976 JRef: 1XQI89760009 T11 DrwNo: 164.23.1354.56043 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 21.63 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.113	E	999	360
VERT(CL): 0.223	E	999	240
HORZ(LL): 0.052	H	-	-
HORZ(TL): 0.103	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.624
Max BC CSI: 0.850
Max Web CSI: 0.269

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1340	/-	/-	/727	/192	/108
H	1340	/-	/-	/727	/192	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
H Brg Wid = 3.5 Min Req = 1.6 (Truss)
Bearings B & H Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	315	- 1975	E - F	375	- 1725
C - D	306	- 1747	F - G	306	- 1747
D - E	375	- 1725	G - H	314	- 1975

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - L	1623	- 194	K - J	1450	- 130
L - K	1450	- 129	J - H	1623	- 198

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - K	380	- 112	K - F	380	- 111
E - K	197	- 411			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; W3,W5 2x4 SP #2;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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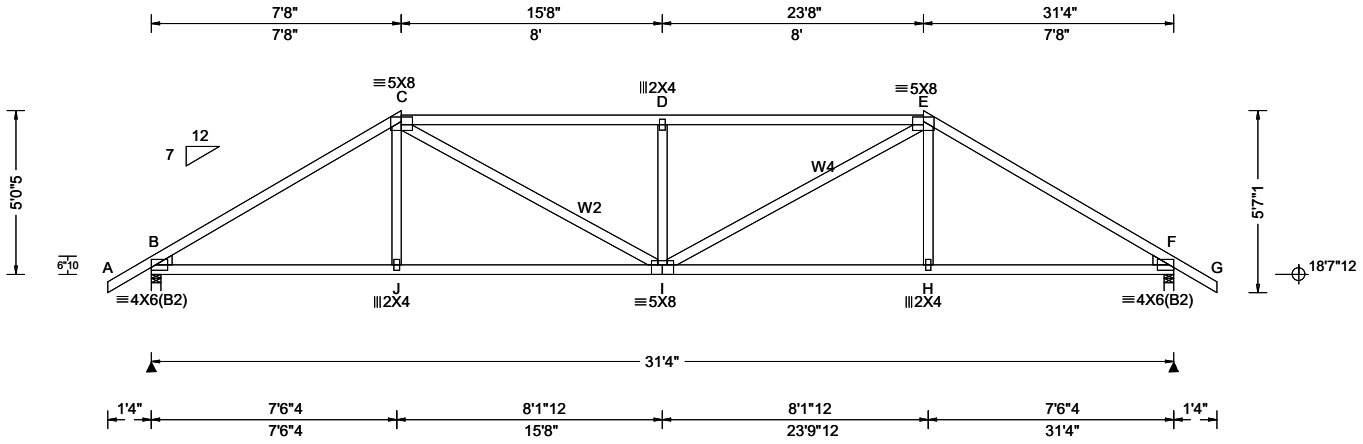
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61825 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A5		Cust: R 8976 JRef: 1XQI89760009 T57 DrwNo: 164.23.1354.52990 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 21.05 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#	
VERT(LL):	0.139	D	999	360
VERT(CL):	0.273	D	999	240
HORZ(LL):	0.050	F	-	-
HORZ(TL):	0.098	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.800
Max BC CSI: 0.718
Max Web CSI: 0.267

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1340	/-	/-	/723	/215	/90
F	1340	/-	/-	/723	/215	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
F Brg Wid = 3.5 Min Req = 1.6 (Truss)
Bearings B & F Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	340	- 1964	D - E	481	- 2210
C - D	481	- 2210	E - F	341	- 1964

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	1599	- 200	I - H	1595	- 199
J - I	1595	- 202	H - F	1599	- 197

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - I	709	- 177	I - E	709	- 177
D - I	255	- 538			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; W2,W4 2x4 SP #2;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Loading

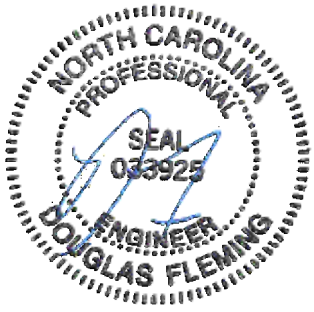
Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.



06/13/2023
ABCD Engineering, PLLC NC COA 0838

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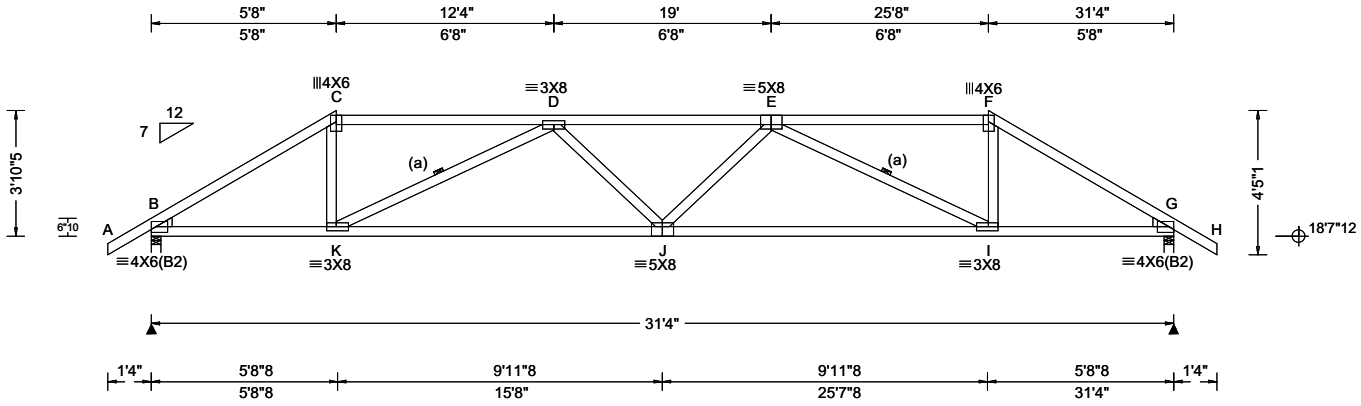
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61826 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A6		Cust: R 8976 JRef: 1XQI89760009 T14 DrwNo: 164.23.1354.49543 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 20.46 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.188 J	999	360
VERT(CL):	0.370 J	999	240
HORZ(LL):	0.059 G	-	-
HORZ(TL):	0.117 G	-	-

Creep Factor: 2.0
Max TC CSI: 0.664
Max BC CSI: 0.537
Max Web CSI: 0.412

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1340	/-	/-	/717	/237	/71
G	1340	/-	/-	/717	/237	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.6 (Truss)
G Brg Wid = 3.5 Min Req = 1.6 (Truss)
Bearings B & G Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	364	-2036	E - F	344	-1684
C - D	343	-1683	F - G	365	-2037
D - E	567	-2851			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - K	1681	-239	J - I	2740	-509
K - J	2743	-520	I - G	1682	-232

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - K	667	-51	E - I	315	-1189
K - D	317	-1193	F - I	667	-49

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

Bracing

(a) 1X4 #3SRB or better continuous lateral restraint to be equally spaced. Attach with (2) 8d Box or Gun nails(0.113"x2.5",min.). Restraint material to be supplied and attached at both ends to a suitable support by erection contractor.

(a) or scab reinforcement may be used in lieu of CLR restraint. substitute (1) scab for (1) CLR and (2) scabs for (2) CLR'S where shown. Scab reinforcement to be same size, species, grade, and 80% length of web member. Attach with 0.128x3" gun nails @ 6" oc.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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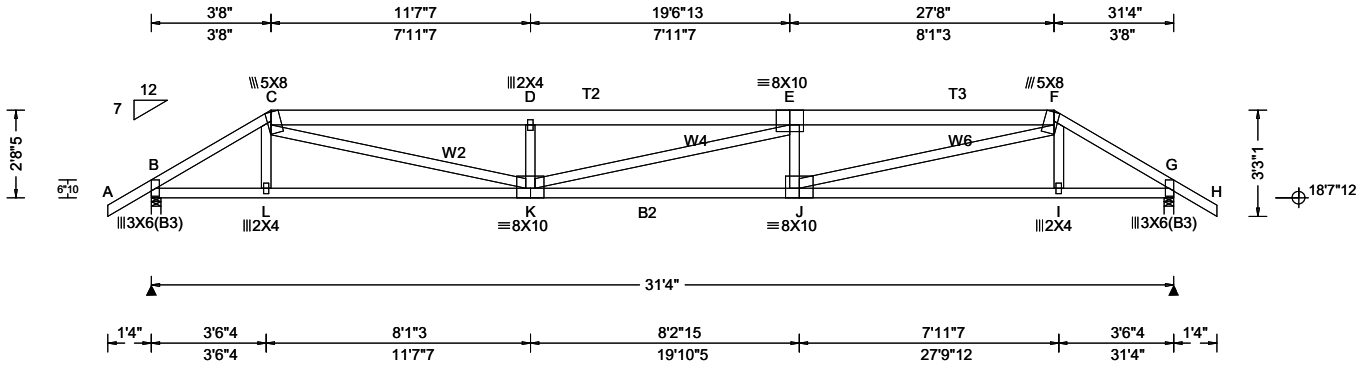
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61835 HIPS FROM: WEB	Ply: 2 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** A7G		Cust: R 8976 JRef: 1XQI89760009 T13 DrwNo: 164.23.1354.45010 / DF 06/13/2023

2 Complete Trusses Required



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 0.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 19.88 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.13 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.236	E	999	360
VERT(CL): 0.462	E	810	240
HORZ(LL): 0.048	G	-	-
HORZ(TL): 0.094	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.617
Max BC CSI: 0.839
Max Web CSI: 0.465

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1971	/-	/-	/-	/137	/-
G	1967	/-	/-	/-	/137	/-

Wind reactions based on MWFRS
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
G Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B & G Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	92	-1567	E - F	193	-3070
C - D	200	-3124	F - G	92	-1563
D - E	199	-3123			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - L	1314	-75	J - I	1304	-77
L - K	1307	-77	I - G	1311	-76
K - J	3112	-202			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - K	1893	-128	J - F	1843	-120

Lumber

Top chord: 2x4 SP #2; T2,T3 2x6 SP #2;
Bot chord: 2x4 SP #2; B2 2x4 SP SS;
Webs: 2x4 SP #3; W2,W4,W6 2x4 SP #2;

Nailnote

Nail Schedule:0.128"x3" nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

Special Loads

------(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)
TC: From 60 plf at -1.33 to 60 plf at 2.06
TC: From 30 plf at 2.06 to 30 plf at 29.27
TC: From 60 plf at 29.27 to 60 plf at 32.67
BC: From 5 plf at -1.33 to 5 plf at 0.00
BC: From 10 plf at 0.00 to 10 plf at 31.33
BC: From 5 plf at 31.33 to 5 plf at 32.67
TC: 90 lb Conc. Load at 4.06, 6.06, 8.06,10.06 12.06,14.06,15.27,17.27,19.27,21.27,23.27,25.27 27.27
BC: 163 lb Conc. Load at 2.06,29.27
BC: 68 lb Conc. Load at 4.06, 6.06, 8.06,10.06 12.06,14.06,15.27,17.27,19.27,21.27,23.27,25.27 27.27

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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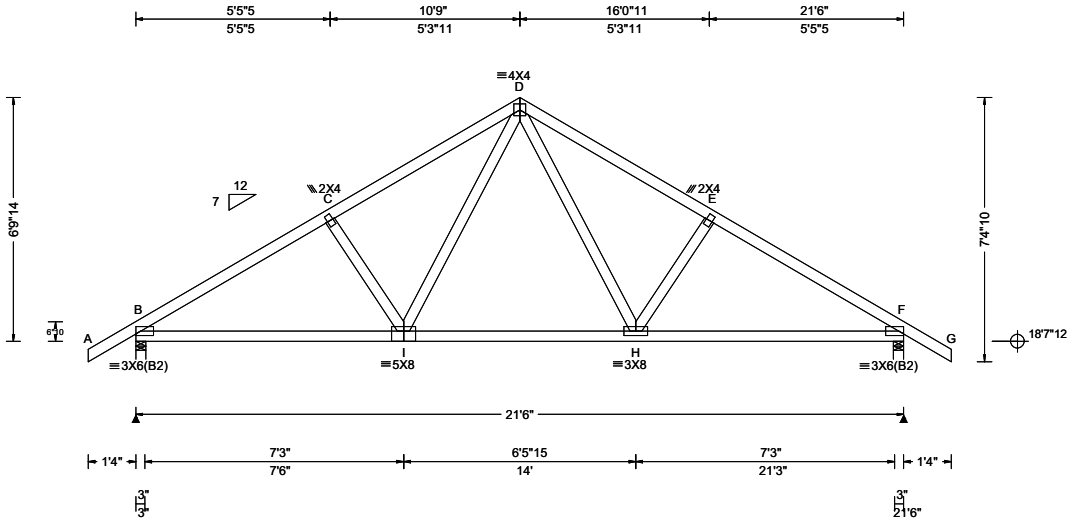
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61743 COMN FROM: WEB	Ply: 1 Qty: 3	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** B1		Cust: R 8976 JRef: 1XQI89760009 T23 DrwNo: 164.23.1354.43593 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 21.94 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.047	H	999	360
VERT(CL): 0.092	H	999	240
HORZ(LL): 0.023	F	-	-
HORZ(TL): 0.045	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.441
Max BC CSI: 0.518
Max Web CSI: 0.173

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	946	/-	/-	/512	/122	/118
F	946	/-	/-	/512	/122	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
F Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B & F Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	146	-1266	D - E	173	-1097
C - D	173	-1096	E - F	146	-1267

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1017	-42	H - F	1017	-48
I - H	706	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - D	417	-39	D - H	418	-38

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Bottom chord checked for 10.00 psf non-concurrent live load.

Live loads applied in combination per ASCE 7 sec. 2.4.1 use 0.75 factor for multiple live loads.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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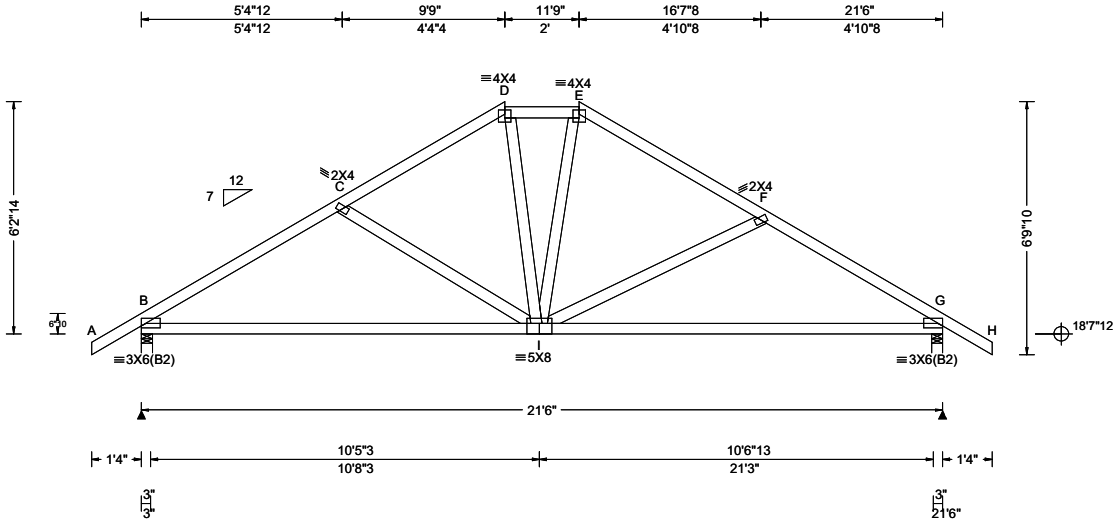
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61838 COMN FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** B2	Cust: R 8976 JRef: 1XQI89760009 T26 DrwNo: 164.23.1354.40317 / DF 06/13/2023	



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 21.65 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.038	I	999	360
VERT(CL): 0.074	I	999	240
HORZ(LL): 0.016	G	-	-
HORZ(TL): 0.032	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.373
Max BC CSI: 0.492
Max Web CSI: 0.243

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	946	/-	/-	/514	/139	/109
G	946	/-	/-	/514	/139	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
G Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B & G Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	194	-1238	E - F	164	-957
C - D	164	-950	F - G	200	-1254
D - E	168	-805			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	995	-82	I - G	1015	-98

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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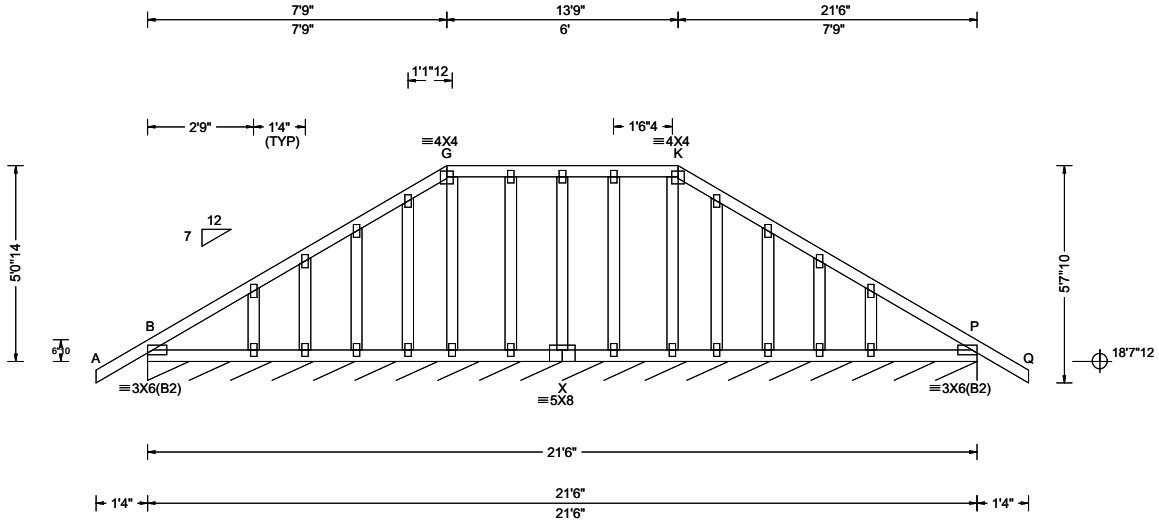
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61839 GABL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** B3GE		Cust: R 8976 JRef: 1XQI89760009 T27 DrwNo: 164.23.1354.39007 / DF 06/13/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.15 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 115 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 21.07 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: 10.0 Ct: 1.1 CAT: II Pf: 7.7 Ce: 1.0 Lu: - Cs: 1.00 Snow Duration: 1.15 Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 H 999 360 VERT(CL): 0.002 H 999 240 HORZ(LL): 0.001 O - - HORZ(TL): 0.002 M - - Creep Factor: 2.0 Max TC CSI: 0.210 Max BC CSI: 0.046 Max Web CSI: 0.091 VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
P*	117	/-	/-	/52	/25	/6

Wind reactions based on C&C
P Brg Wid = 258 Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Plating Notes

All plates are 2X4 except as noted.

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 3.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS A11530ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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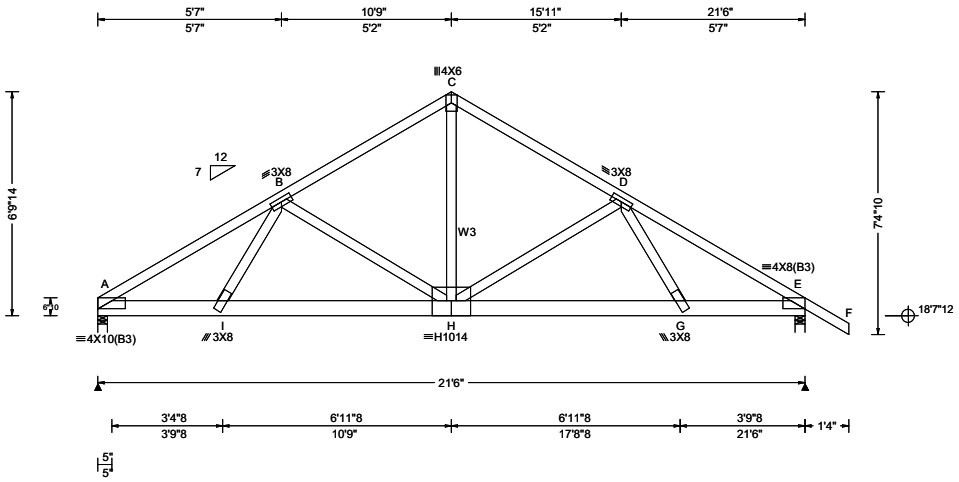
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61829 COMN FROM: WEB	Ply: 3 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** B1G	Cust: R 8976 JRef: 1XQI89760009 T19 DrwNo: 164.23.1354.41727 / DF 06/13/2023

3 Complete Trusses Required



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 0.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 21.94 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.103	H	999	360
VERT(CL): 0.203	H	999	240
HORZ(LL): 0.031	E	-	-
HORZ(TL): 0.060	E	-	-

Creep Factor: 2.0
Max TC CSI: 0.710
Max BC CSI: 0.681
Max Web CSI: 0.601

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	7019	/-	/-	/-	/343	/-
E	6490	/-	/-	/-	/333	/-

Wind reactions based on MWFRS
A Brg Wid = 3.5 Min Req = 2.8 (Truss)
E Brg Wid = 3.5 Min Req = 2.6 (Truss)
Bearings A & E Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	182	- 3821	C - D	122	- 2586
B - C	122	- 2587	D - E	179	- 3807

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - I	3264	- 152	H - G	2780	- 135
I - H	2792	- 137	G - E	3248	- 149

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - B	1038	- 33	H - D	41	- 667
B - H	44	- 682	D - G	1029	- 31
C - H	2447	- 91			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x6 SP SS;
Webs: 2x4 SP #3; W3 2x4 SP #2;

Nailnote

Nail Schedule:0.128"x3" nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 2 Rows @ 5.00" o.c. (Each Row)
Webs : 1 Row @ 4" o.c.
Repeat nailing as each layer is applied. Use equal spacing between rows and stagger nails in each row to avoid splitting.

Special Loads

------(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)

TC: From	60 plf at	0.00 to	60 plf at	22.83
BC: From	10 plf at	0.00 to	10 plf at	17.71
BC: From	20 plf at	17.71 to	20 plf at	21.50
BC: From	5 plf at	21.50 to	5 plf at	22.83

BC: 1247 lb Conc. Load at 1.77, 3.77, 5.77
BC: 1251 lb Conc. Load at 7.77,11.77,13.77
BC: 1292 lb Conc. Load at 9.77
BC: 1250 lb Conc. Load at 15.77
BC: 1843 lb Conc. Load at 17.71

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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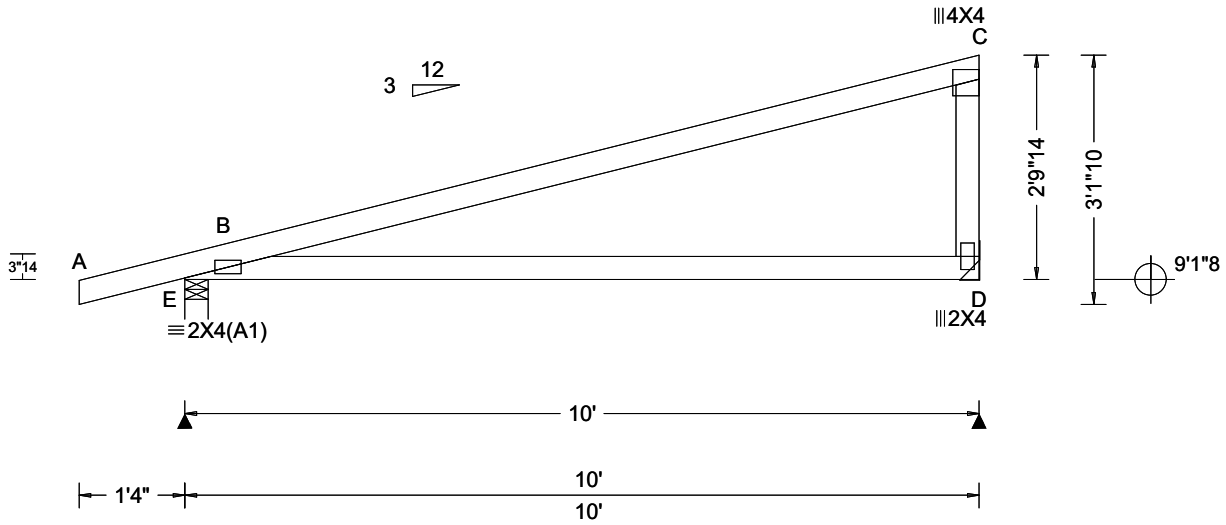
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61920 MONO FROM: WEB	Ply: 1 Qty: 10	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** M1	Cust: R 8976 JRef: 1XQI89760009 T1 DrwNo: 164.23.1354.25610 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	NA		
VERT(CL):	NA		
HORZ(LL):	0.034 B	-	-
HORZ(TL):	0.066 B	-	-

Creep Factor: 2.0
Max TC CSI: 0.699
Max BC CSI: 0.445
Max Web CSI: 0.554

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
E	498	/-	/-	/249	/199	/141
D	387	/-	/-	/198	/149	/-

Wind reactions based on C&C
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = - Min Req = -
Bearing E Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP SS;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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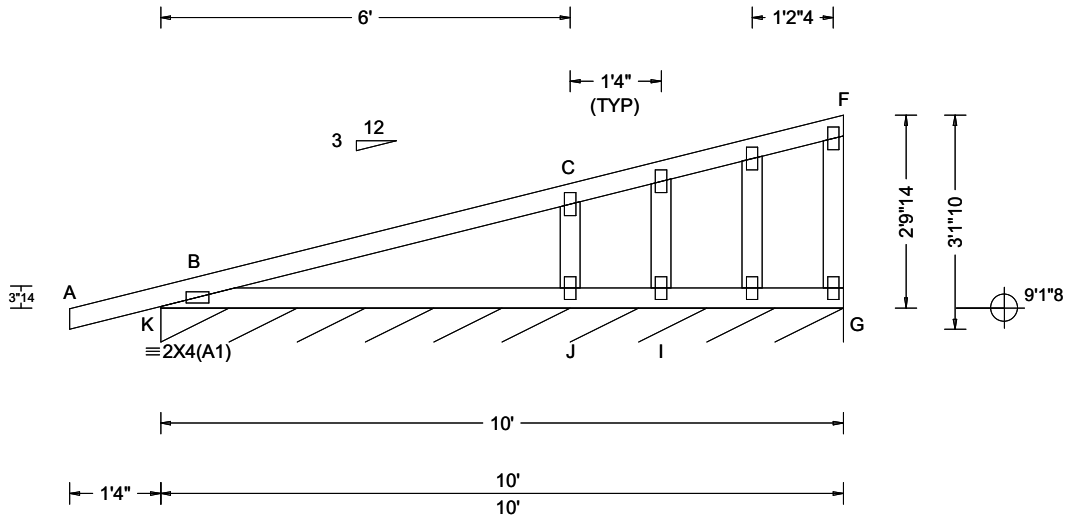
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61921 GABL FROM: WEB	Ply: 1 Qty: 2	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** M1GE	Cust: R 8976 JRef: 1XQI89760009 T2 DrwNo: 164.23.1354.24463 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.018 B	999	360
VERT(CL):	0.032 B	999	240
HORZ(LL):	0.005 B	-	-
HORZ(TL):	0.010 B	-	-

Creep Factor: 2.0
Max TC CSI: 0.237
Max BC CSI: 0.130
Max Web CSI: 0.095

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
K*	112	/-	/-	/54	/52	/20
I		/-104				

Wind reactions based on C&C
K Brg Wid = 120 Min Req = -
Bearing K is a rigid surface.
Members not listed have forces less than 375#

Maximum Gable Forces Per Ply (lbs)

Gables	Tens.	Comp.
C - J	286	-471

Lumber

Top chord: 2x4 SP SS;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;

Plating Notes

All plates are 2X4 except as noted.

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 3.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS A11515ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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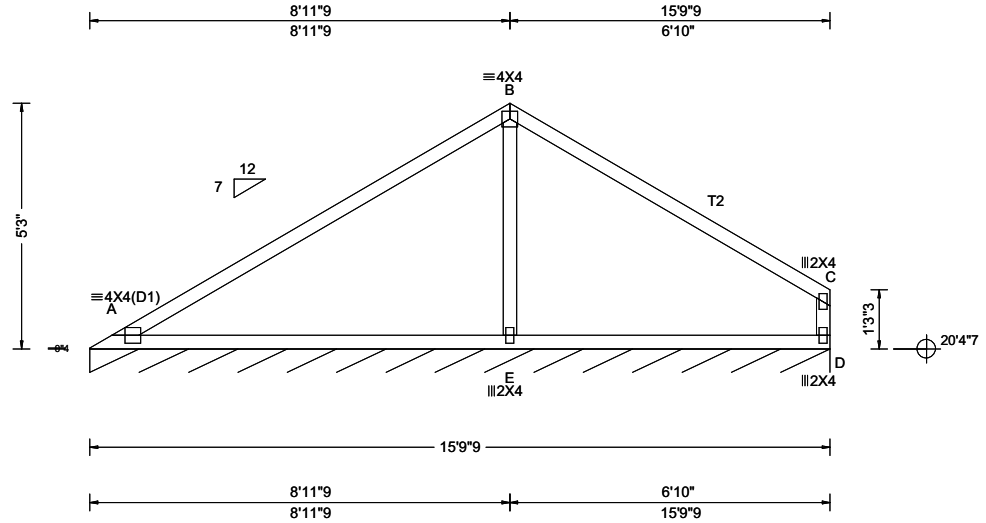
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61871 VAL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** V1		Cust: R 8976 JRef: 1XQI89760009 T36 DrwNo: 164.23.1353.55020 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 23.14 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.082	A	999	360
VERT(CL): 0.165	A	999	240
HORZ(LL): 0.025	A	-	-
HORZ(TL): 0.050	A	-	-

Creep Factor: 2.0
Max TC CSI: 0.899
Max BC CSI: 0.434
Max Web CSI: 0.251

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
D*	80	/-	/-	/40	/12	/5

Wind reactions based on C&C
D Brg Wid = 189 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP SS; T2 2x4 SP #2;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VALTN160118 for valley details.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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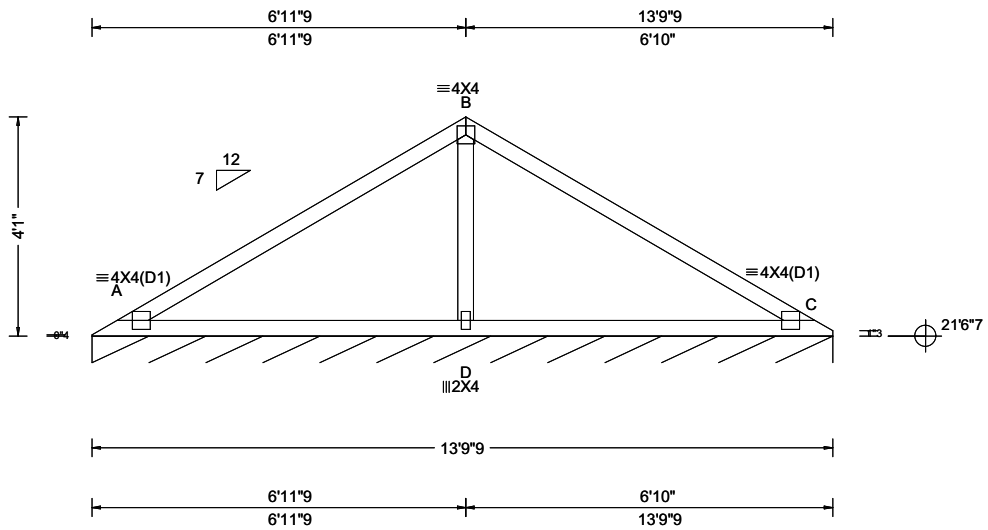
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61873 VAL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** V2	Cust: R 8976 JRef: 1XQI89760009 T24 DrwNo: 164.23.1353.53860 / DF 06/13/2023	



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 23.72 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.037	A	999	360
VERT(CL): 0.074	A	999	240
HORZ(LL): -0.015	C	-	-
HORZ(TL): 0.031	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.727
Max BC CSI: 0.564
Max Web CSI: 0.255

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	80	/-	/-	/39	/13	/4

Wind reactions based on C&C
C Brg Wid = 165 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	548	- 162	B - C	548	- 162

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - D	203	- 400	D - C	203	- 400

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.
B - D	278	- 802

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

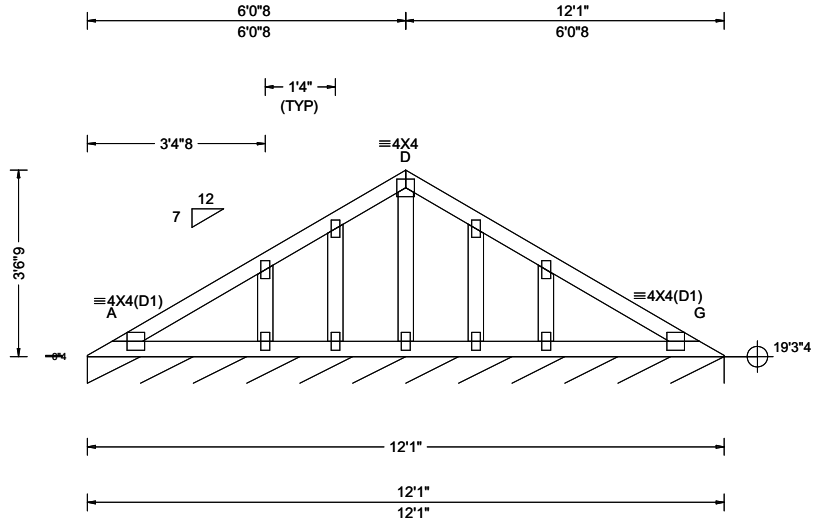
Additional Notes

See DWG VALTN160118 for valley details.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61925 GABL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** V3A		Cust: R 8976 JRef: 1XQI89760009 T46 DrwNo: 164.23.1353.51493 / DF 06/13/2023



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.15 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 115 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 21.19 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: 10.0 Ct: 1.1 CAT: II Pf: 7.7 Ce: 1.0 Lu: - Cs: 1.00 Snow Duration: 1.15 Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.005 G 999 360 VERT(CL): 0.009 G 999 240 HORZ(LL): -0.002 G - - HORZ(TL): 0.004 G - - Creep Factor: 2.0 Max TC CSI: 0.177 Max BC CSI: 0.113 Max Web CSI: 0.051 VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
G*	101	/-	/-	/46	/23	/6

Wind reactions based on C&C
G Brg Wid = 144 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Plating Notes

All plates are 2X4 except as noted.

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 3.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS A11530ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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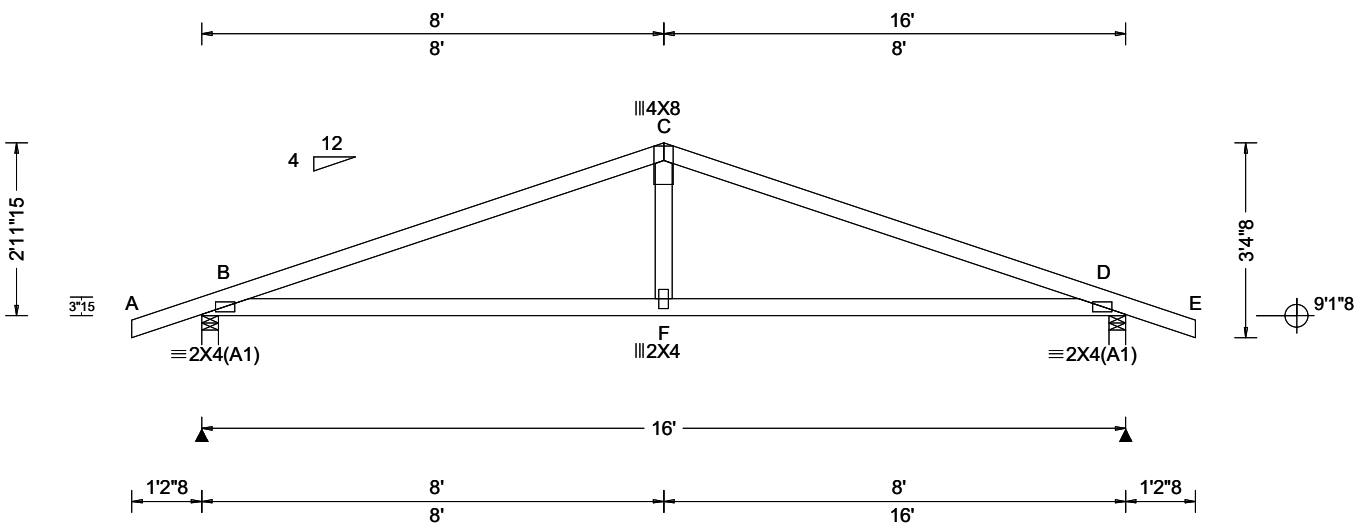
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61929 COMN FROM: WEB	Ply: 1 Qty: 3	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** CP1		Cust: R 8976 JRef: 1XQI89760009 T53 DrwNo: 164.23.1354.37660 / DF 06/13/2023	



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: 10.0 Ct: 1.1 CAT: II	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 115 mph	Pf: 7.7 Ce: 1.0	VERT(LL): 0.037 F 999 360
BCLL: 0.00	Enclosure: Closed	Lu: - Cs: 1.00	VERT(CL): 0.071 F 999 240
BCDL: 10.00	Risk Category: II	Snow Duration: 1.15	HORZ(LL): 0.013 D - -
Des Ld: 40.00	EXP: B Kzt: NA		HORZ(TL): 0.025 D - -
NCBCLL: 10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	IRC 2018	Max TC CSI: 0.676
Load Duration: 1.15	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.719
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.135
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: Any	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	718	/-	/-	/384	/179	/41
D	718	/-	/-	/384	/179	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B & D Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	265	-1187	C - D	265	-1187

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - F	1071	-171	F - D	1071	-171

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

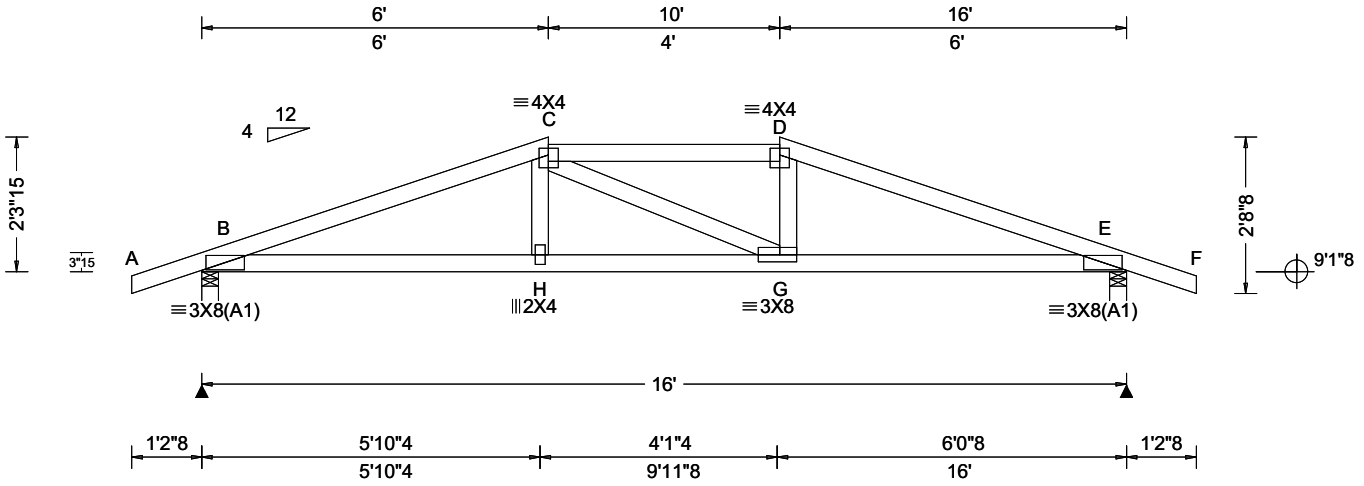
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. Refer to job's General Notes page for additional information.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61949 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** CP2		Cust: R 8976 JRef: 1XQI89760009 T51 DrwNo: 164.23.1354.36390 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#	
VERT(LL):	0.047	G	999	360
VERT(CL):	0.092	G	999	240
HORZ(LL):	0.015	E	-	-
HORZ(TL):	0.030	E	-	-

Creep Factor: 2.0
Max TC CSI: 0.389
Max BC CSI: 0.464
Max Web CSI: 0.075

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	718	/-	/-	/385	/199	/33
E	718	/-	/-	/385	/199	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B & E Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	359	-1322	D - E	360	-1319
C - D	369	-1212			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - H	1215	-277	G - E	1212	-277
H - G	1207	-280			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

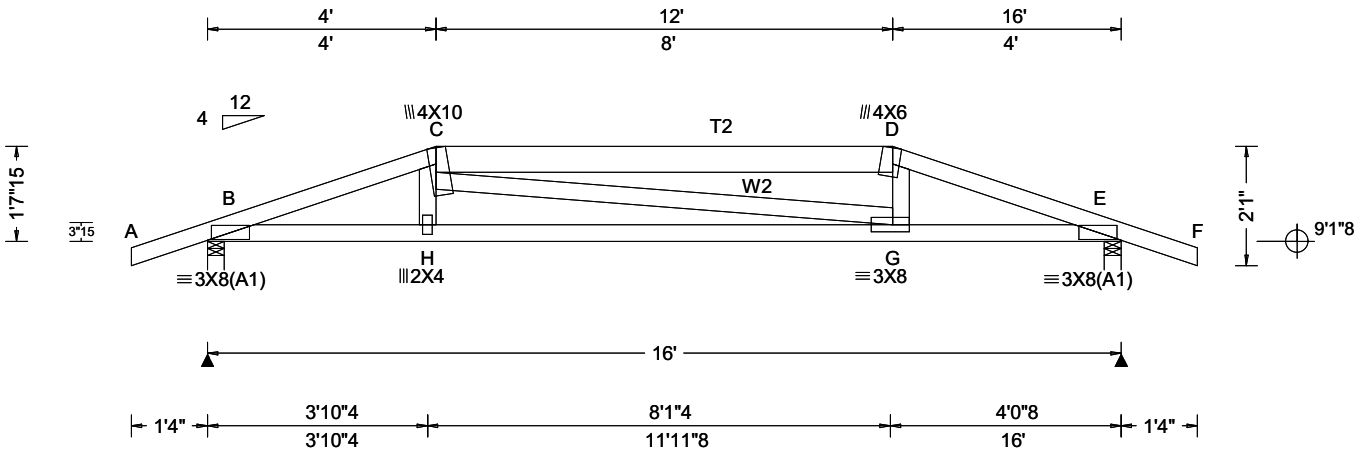
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. Refer to job's General Notes page for additional information.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61947 HIPS FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** CP3		Cust: R 8976 JRef: 1XQI89760009 T59 DrwNo: 164.23.1354.35083 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.079 C	999	360
VERT(CL):	0.151 C	999	240
HORZ(LL):	0.023 E	-	-
HORZ(TL):	0.045 E	-	-

Creep Factor: 2.0
Max TC CSI: 0.867
Max BC CSI: 0.547
Max Web CSI: 0.130

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	1036 /-	/-	/-	/11	/-
E	1034 /-	/-	/-	/11	/-

Wind reactions based on MWFRS
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B & E Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-2434	D - E	0	-2424
C - D	0	-2288			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - H	2298	0	G - E	2288	0
H - G	2263	0			

Lumber

Top chord: 2x4 SP #2; T2 2x6 SP #2;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3; W2 2x4 SP #2;

Special Loads

------(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)

TC: From	60 plf at	-1.33 to	60 plf at	2.06	
TC: From	30 plf at	2.06 to	30 plf at	13.94	
TC: From	60 plf at	13.94 to	60 plf at	17.33	
BC: From	4 plf at	-1.33 to	4 plf at	0.00	
BC: From	10 plf at	0.00 to	10 plf at	16.00	
BC: From	4 plf at	16.00 to	4 plf at	17.33	

TC: 94 lb Conc. Load at 4.06, 6.06, 7.94, 9.94 11.94
BC: 163 lb Conc. Load at 2.06,13.94
BC: 68 lb Conc. Load at 4.06, 6.06, 7.94, 9.94 11.94

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

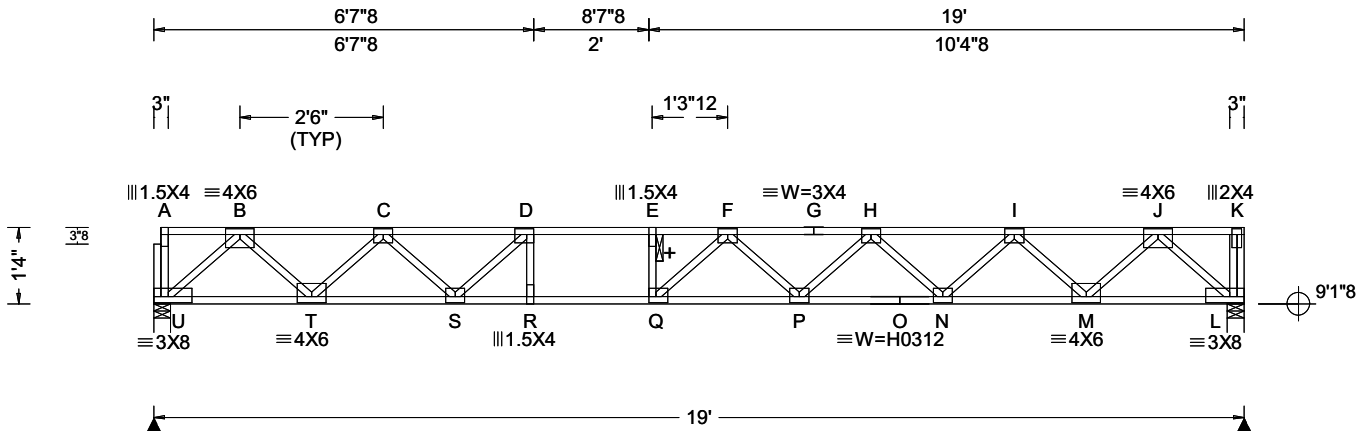
Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61901 SY42 FROM: WEB	Ply: 1 Qty: 7	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF1		Cust: R 8976 JRef: 1XQI89760009 T28 DrwNo: 164.23.1354.18193 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	40.00
TCDL:	10.00
BCLL:	0.00
BCDL:	5.00
Des Ld:	55.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.376	E	592	360
VERT(CL): 0.512	E	435	240
HORZ(LL): 0.046	L	-	-
HORZ(TL): 0.063	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.961
Max BC CSI: 0.832
Max Web CSI: 0.524

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
U	1029 /-	/-	/-	/-	/-
L	1049 /-	/-	/-	/-	/-

U Brg Wid = 3.5 Min Req = 1.5
L Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings U & L Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1835	F - G	0	-3765
C - D	0	-3088	G - H	0	-3765
D - E	0	-3730	H - I	0	-3049
E - F	0	-3731	I - J	0	-1798

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
U - T	1061	0	P - O	3535	0
T - S	2568	0	O - N	3535	0
S - R	3718	0	N - M	2557	0
R - Q	3730	0	M - L	1007	0
Q - P	3899	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
U - B	0	-1443	H - N	0	-675
B - T	1076	0	N - I	685	0
T - C	0	-1019	I - M	0	-1056
C - S	734	0	M - J	1100	0
S - D	0	-979	J - L	0	-1405
Q - F	269	-460			

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP SS;
Webs: 4x2 SP #3;

Plating Notes

All plates are 3X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection

Max JT VERT DEFL: LL: 0.38" DL: 0.19". See detail DEFLCAMB1014 for camber recommendations.

End Vertical Attachment

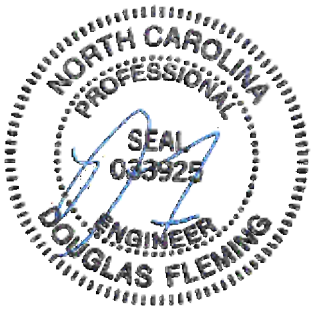
Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

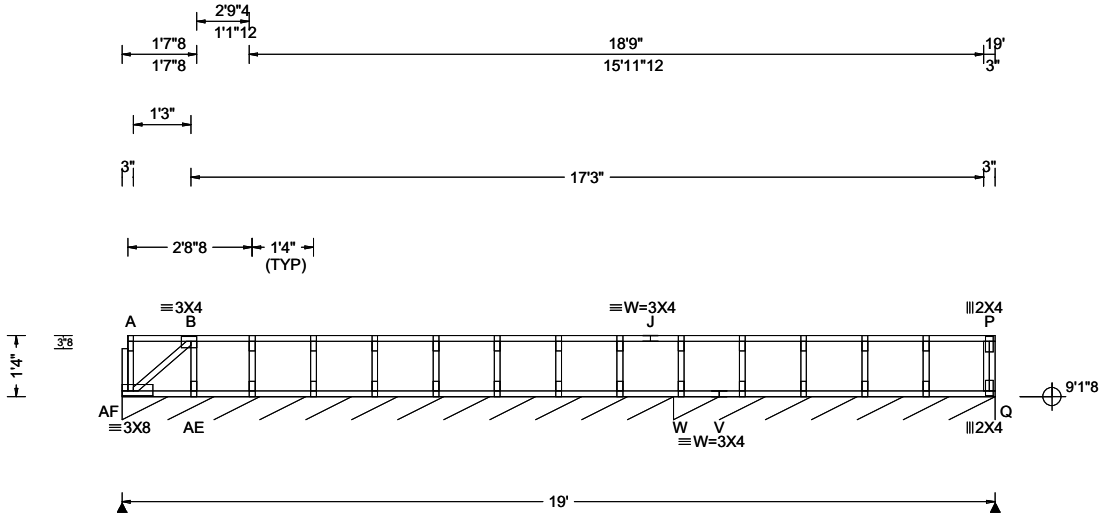
Truss must be installed as shown with top chord up.



06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61902 SY42 FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF2		Cust: R 8976 JRef: 1XQI89760009 T32 DrwNo: 164.23.1354.05937 / DF 06/13/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 B 999 360 VERT(CL): 0.001 B 999 240 HORZ(LL): 0.001 P - - HORZ(TL): 0.001 P - - Creep Factor: 2.0 Max TC CSI: 0.168 Max BC CSI: 0.012 Max Web CSI: 0.048 VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
AF*	142	/-	/-	/-	/-	/-
W*	160	/-	/-	/-	/-	/-

AF Brg Wid = 144 Min Req = -
W Brg Wid = 84.0 Min Req = -
Bearings AF & W are a rigid surface.
Members not listed have forces less than 375#

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP SS;
Webs: 4x2 SP #3;

Plating Notes

All plates are 1.5X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

See detail STRBRIBR1014 for bracing and bridging recommendations.

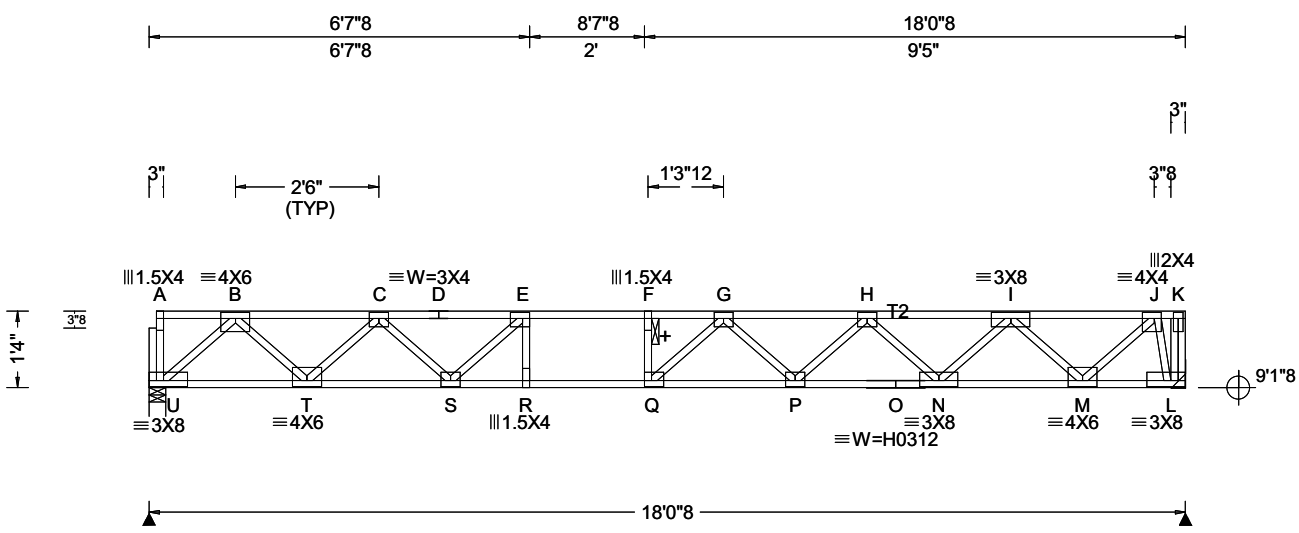
Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61903 SY42 FROM: WEB	Ply: 1 Qty: 8	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF3		Cust: R 8976 JRef: 1XQI89760009 T41 DrwNo: 164.23.1354.04713 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 40.00
TCDL: 10.00
BCLL: 0.00
BCDL: 5.00
Des Ld: 55.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.270	F	782	360
VERT(CL): 0.372	F	567	240
HORZ(LL): 0.039	L	-	-
HORZ(TL): 0.053	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.598
Max BC CSI: 0.667
Max Web CSI: 0.559

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
U	976	/-	/-	/-	/-	/-
L	996	/-	/-	/-	/-	/-

U Brg Wid = 3.5 Min Req = 1.5
L Brg Wid = - Min Req = -
Bearing U Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1724	F - G	0	-3404
C - D	0	-2870	G - H	0	-3275
D - E	0	-2870	H - I	0	-2463
E - F	0	-3404	I - J	0	-1095

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
U - T	1002	0	Q - P	3481	0
T - S	2408	0	P - O	2997	0
S - R	3396	0	O - N	2997	0
R - Q	3404	0	N - M	1914	0

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
U - B	0	-1363	H - N	0	-743
B - T	1003	0	N - I	763	0
T - C	0	-952	I - M	0	-1139
C - S	663	0	M - J	1173	0
S - E	0	-840	J - L	0	-1085
P - H	386	0			

Lumber

Top chord: 4x2 SP #2; T2 4x2 SP SS;
Bot chord: 4x2 SP SS;
Webs: 4x2 SP #3;

Plating Notes

All plates are 3X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

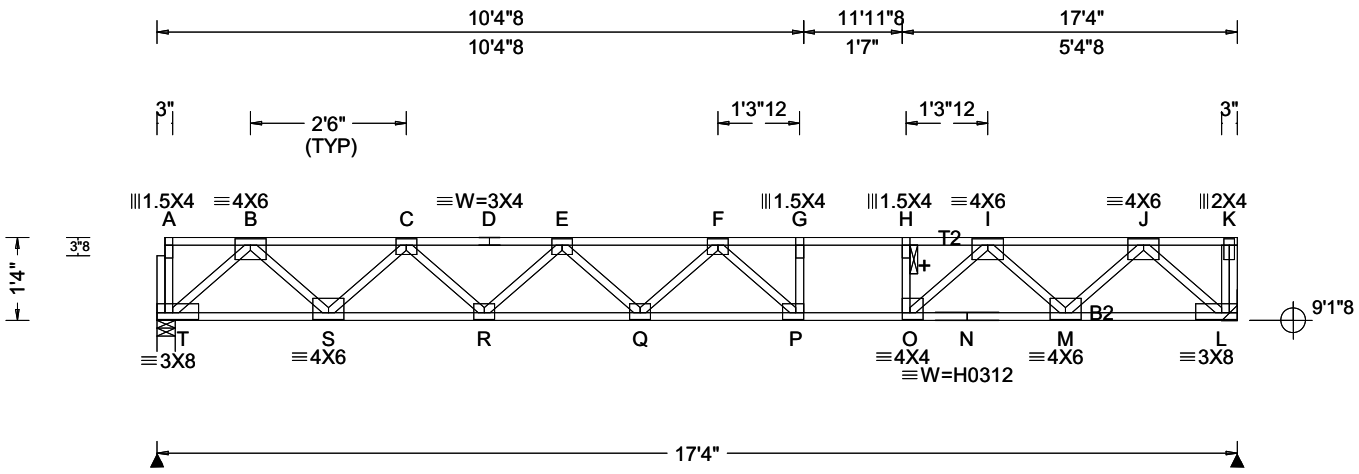
Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61904 SY42 FROM: WEB	Ply: 1 Qty: 7	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF4		Cust: R 8976 JRef: 1XQI89760009 T29 DrwNo: 164.23.1354.03173 / DF 06/13/2023



Loading Criteria (psf)		Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria			
TCLL:	40.00	Wind Std: NA	Pg: NA Ct: NA CAT: NA	PP Deflection in	loc	L/defl	L/#
TCDL:	10.00	Speed: NA mph	Pf: NA Ce: NA	VERT(LL):	0.257 P	789	480
BCLL:	0.00	Enclosure: NA	Lu: NA Cs: NA	VERT(CL):	0.340 P	596	360
BCDL:	5.00	Category: NA	Snow Duration: NA	HORZ(LL):	0.046 B	-	-
Des Ld:	55.00	EXP: NA Kzt: NA		HORZ(TL):	0.063 B	-	-
NCBCLL:	10.00	Mean Height: NA ft	Building Code:	Creep Factor: 2.0			
Soffit:	2.00	TCDL: NA psf	IRC 2018	Max TC CSI:	0.534		
Load Duration:	1.00	BCDL: NA psf	TPI Std: 2014	Max BC CSI:	0.812		
Spacing:	24.0 "	MWFRS Parallel Dist: NA	Rep Fac: Yes	Max Web CSI:	0.463		
		C&C Dist a: NA ft	FT/RT:12(0)/10(0)				
		Loc. from endwall: NA	Plate Type(s):	VIEW Ver: 21.02.01.1216.14			
		I: NA GCpi: NA	WAVE, HS				
		Wind Duration: NA					

Lumber

Top chord: 4x2 SP #2; T2 4x2 SP SS;
Bot chord: 4x2 SP SS; B2 4x2 SP #2;
Webs: 4x2 SP #3;

Plating Notes

All plates are 3X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
T	937	/-	/-	/-	/-	/-
L	957	/-	/-	/-	/-	/-

T Brg Wid = 3.5 Min Req = 1.5
L Brg Wid = - Min Req = -
Bearing T Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1644	F - G	0	-2933
C - D	0	-2692	G - H	0	-2924
D - E	0	-2692	H - I	0	-2902
E - F	0	-3204	I - J	0	-1581

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
T - S	955	0	P - O	2924	0
S - R	2302	0	O - N	2274	0
R - Q	3073	0	N - M	2274	0
Q - P	3244	0	M - L	913	0

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
T - B	0	-1299	H - O	0	-473
B - S	958	0	O - I	972	0
S - C	0	-914	I - M	0	-965
C - R	543	0	M - J	928	0
R - E	0	-531	J - L	0	-1274
F - P	96	-579			

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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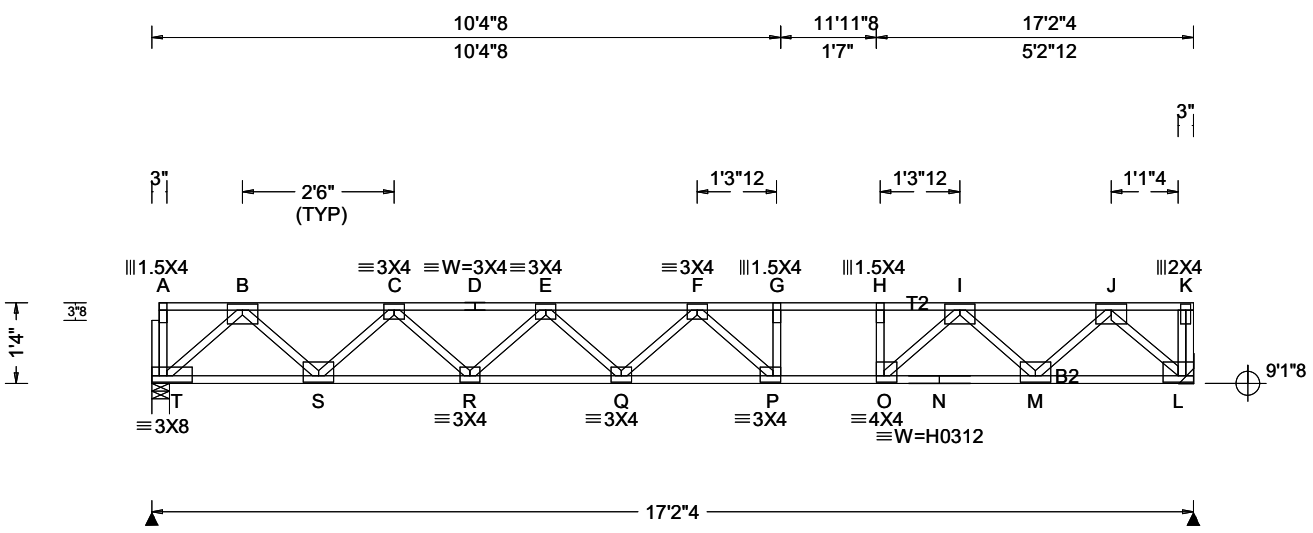
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61905 SY42 FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF5		Cust: R 8976 JRef: 1XQI89760009 T37 DrwNo: 164.23.1354.01640 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 40.00
TCDL: 10.00
BCLL: 0.00
BCDL: 5.00
Des Ld: 55.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.253	P	793	480
VERT(CL): 0.337	P	597	360
HORZ(LL): 0.045	B	-	-
HORZ(TL): 0.062	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.539
Max BC CSI: 0.798
Max Web CSI: 0.469

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
T	929	/-	/-	/-	/-	/-
L	949	/-	/-	/-	/-	/-

T Brg Wid = 3.5 Min Req = 1.5
L Brg Wid = - Min Req = -
Bearing T Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1627	F - G	0	-2861
C - D	0	-2658	G - H	0	-2852
D - E	0	-2658	H - I	0	-2829
E - F	0	-3154	I - J	0	-1484

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
T - S	947	0	P - O	2852	0
S - R	2276	0	O - N	2187	0
R - Q	3032	0	N - M	2187	0
Q - P	3186	0	M - L	811	0

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
T - B	0	-1287	H - O	0	-479
B - S	947	0	O - I	985	0
S - C	0	-903	I - M	0	-978
C - R	531	0	M - J	937	0
R - E	0	-520	J - L	0	-1206
F - P	83	-590			

Lumber

Top chord: 4x2 SP #2; T2 4x2 SP SS;
Bot chord: 4x2 SP SS; B2 4x2 SP #2;
Webs: 4x2 SP #3;

Plating Notes

All plates are 4X6 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
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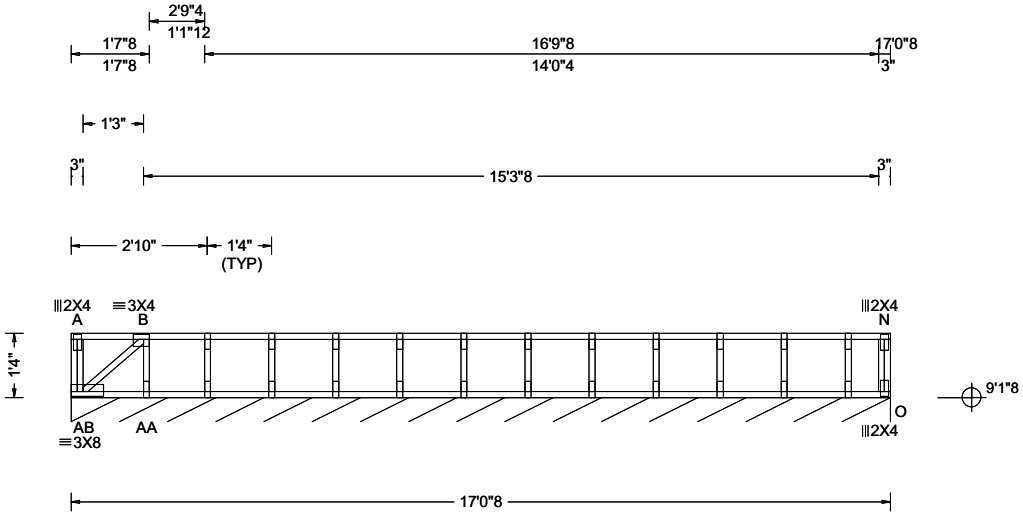
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61906 SY42 FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF6		Cust: R 8976 JRef: 1XQI89760009 T40 DrwNo: 164.23.1354.00140 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 40.00
TCDL: 10.00
BCLL: 0.00
BCDL: 5.00
Des Ld: 55.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.001	B	999	480
VERT(CL): 0.001	B	999	360
HORZ(LL): 0.001	N	-	-
HORZ(TL): 0.001	N	-	-

Creep Factor: 2.0
Max TC CSI: 0.158
Max BC CSI: 0.024
Max Web CSI: 0.046

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
O*	150	/-	/-	/-	/-	/-

O Brg Wid = 204 Min Req = -
Bearing AB Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Bracing

Sheathing is required for any longitudinal(drag) forces. All connections to be designed by the building designer.

Plating Notes

All plates are 1.5X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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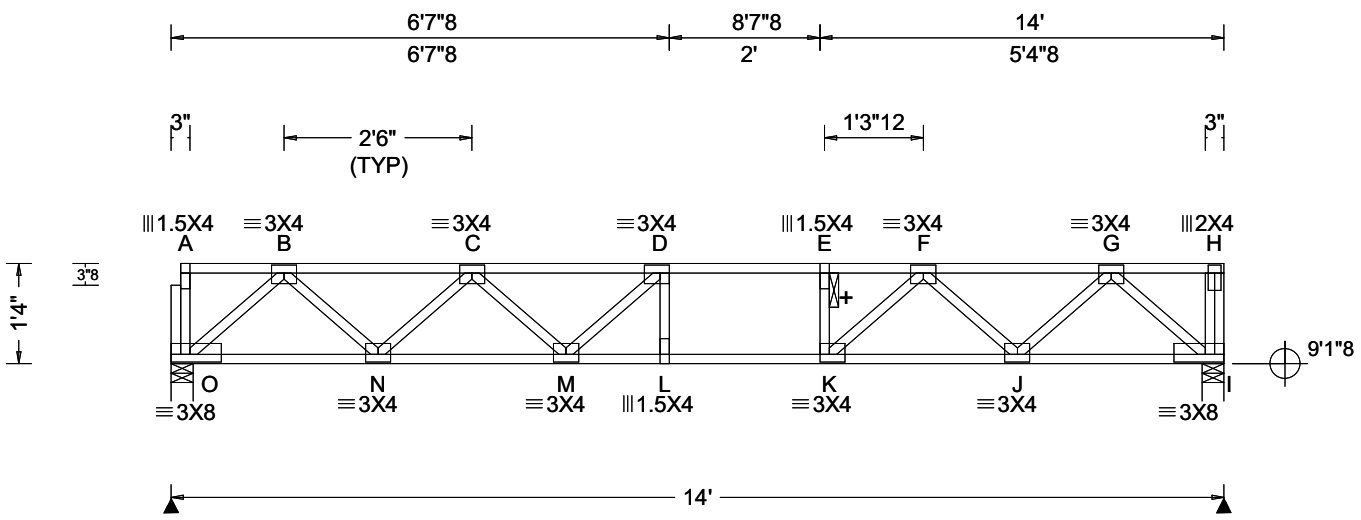
ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61907 SY42 FROM: WEB	Ply: 1 Qty: 8	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF7		Cust: R 8976 JRef: 1XQI89760009 T33 DrwNo: 164.23.1353.59003 / DF 06/13/2023



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 40.00	Wind Std: NA	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: NA mph	Pf: NA Ce: NA	VERT(LL): 0.124 L 999 360
BCLL: 0.00	Enclosure: NA	Lu: NA Cs: NA	VERT(CL): 0.190 L 856 240
BCDL: 5.00	Category: NA	Snow Duration: NA	HORZ(LL): 0.027 B - -
Des Ld: 55.00	EXP: NA Kzt: NA		HORZ(TL): 0.040 B - -
NCBCLL: 10.00	Mean Height: NA ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: NA psf	IRC 2018	Max TC CSI: 0.747
Load Duration: 1.00	BCDL: NA psf	TPI Std: 2014	Max BC CSI: 0.447
Spacing: 24.0 "	MWFRS Parallel Dist: NA	Rep Fac: Yes	Max Web CSI: 0.334
	C&C Dist a: NA ft	FT/RT:12(0)/10(0)	
	Loc. from endwall: NA	Plate Type(s):	VIEW Ver: 21.02.01.1216.14
	l: NA GCpi: NA	WAVE	
	Wind Duration: NA		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
O	754	/-	/-	/-	/-	/-
I	774	/-	/-	/-	/-	/-

O Brg Wid = 3.5 Min Req = 1.5
I Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings O & I Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1257	E - F	0	-2028
C - D	0	-1926	F - G	0	-1215
D - E	0	-2039			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
O - N	753	0	L - K	2039	0
N - M	1737	0	K - J	1705	0
M - L	2043	0	J - I	724	0

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
O - B	0	-1024	F - J	0	-681
B - N	701	0	J - G	683	0
N - C	0	-667	G - I	0	-1011
K - F	595	0			

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP SS;
Webs: 4x2 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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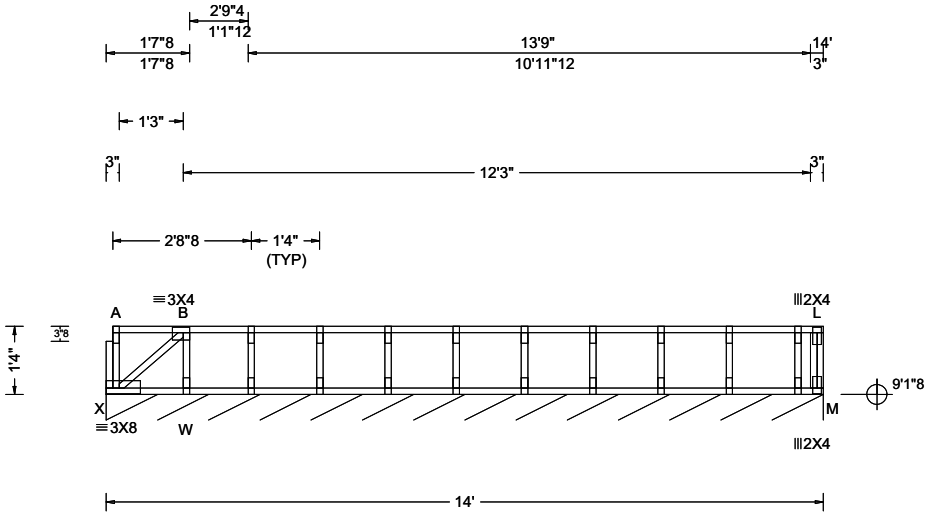
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61908 SY42 FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF8		Cust: R 8976 JRef: 1XQI89760009 T38 DrwNo: 164.23.1353.57613 / DF 06/13/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲Maximum Reactions (lbs), or *=PLF
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 B 999 360 VERT(CL): 0.001 B 999 240 HORZ(LL): 0.001 L - - HORZ(TL): 0.001 L - - Creep Factor: 2.0 Max TC CSI: 0.168 Max BC CSI: 0.026 Max Web CSI: 0.048 VIEW Ver: 21.02.01.1216.14	Gravity / Non-Gravity Loc R+ / R- / Rh / Rw / U / RL X* 148 /- /- /- /- /- X Brg Wid = 168 Min Req = - Bearing X is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Bracing

Sheathing is required for any longitudinal(drag) forces. All connections to be designed by the building designer.

Plating Notes

All plates are 1.5X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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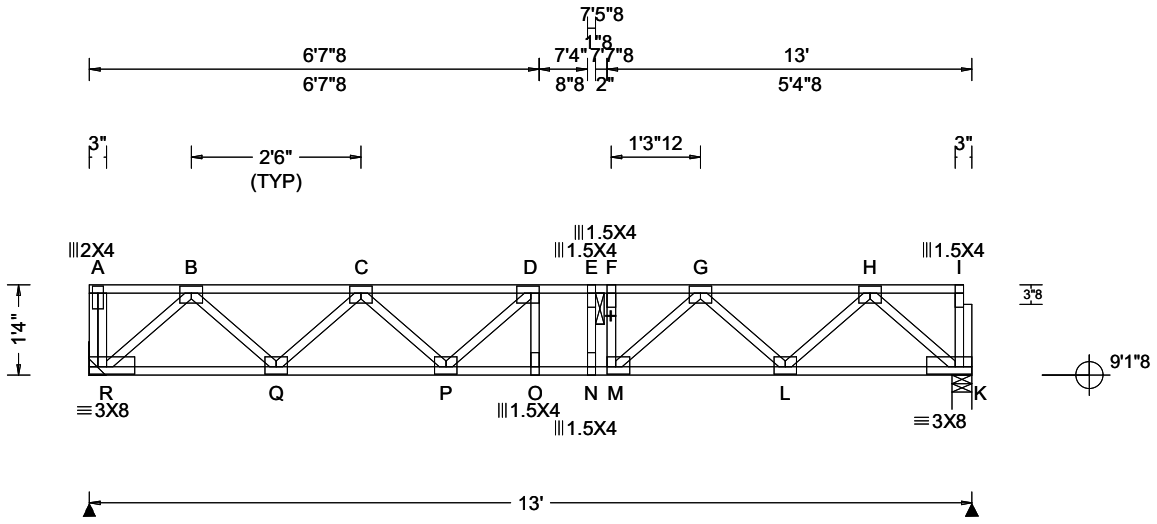
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61909 SY42 FROM: WEB	Ply: 1 Qty: 3	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF9		Cust: R 8976 JRef: 1XQI89760009 T5 DrwNo: 164.23.1353.56440 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 40.00
TCDL: 10.00
BCLL: 0.00
BCDL: 5.00
Des Ld: 55.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.086	D	999	480
VERT(CL): 0.119	D	999	360
HORZ(LL): 0.020	B	-	-
HORZ(TL): 0.028	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.449
Max BC CSI: 0.680
Max Web CSI: 0.301

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
R	719	/-	/-	/-	/-	/-
K	699	/-	/-	/-	/-	/-

R Brg Wid = - Min Req = -
K Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearing K Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1119	E - F	0	-1772
C - D	0	-1688	F - G	0	-1763
D - E	0	-1772	G - H	0	-1132

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
R - Q	664	0	N - M	1772	0
Q - P	1548	0	M - L	1546	0
P - O	1776	0	L - K	699	0
O - N	1772	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
R - B	0	-927	G - L	0	-577
B - Q	632	0	L - H	601	0
Q - C	0	-597	H - K	0	-951
M - G	430	-31			

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Plating Notes

All plates are 3X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

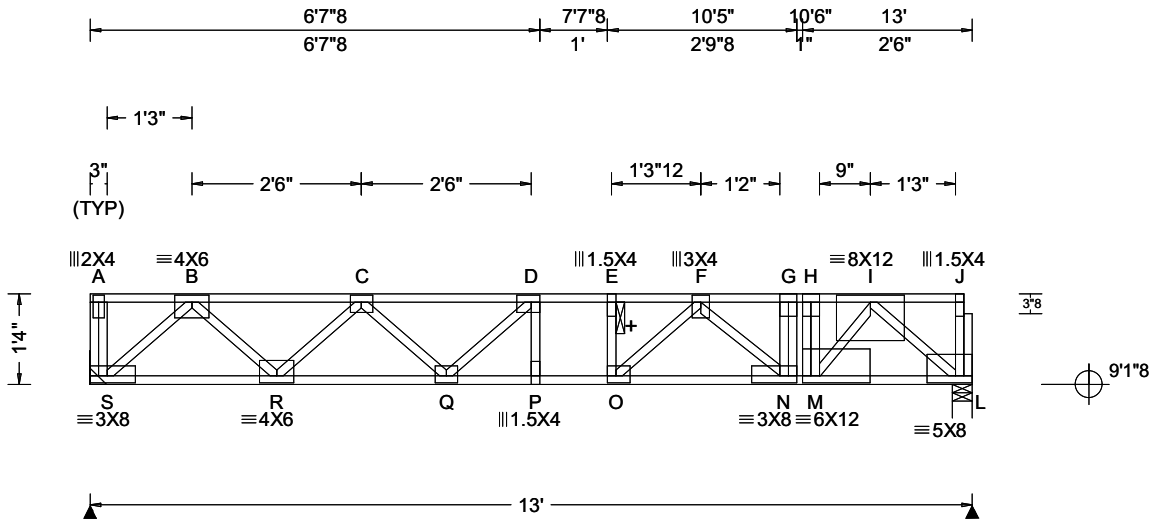
Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61917 SY42 FROM: WEB	Ply: 1 Qty: 2	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF10		Cust: R 8976 JRef: 1XQI89760009 T43 DrwNo: 164.23.1354.16610 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 40.00
TCDL: 10.00
BCLL: 0.00
BCDL: 5.00
Des Ld: 55.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.148	E	999	480
VERT(CL): 0.203	E	742	360
HORZ(LL): 0.027	L	-	-
HORZ(TL): 0.037	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.763
Max BC CSI: 0.674
Max Web CSI: 0.964

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
S	963	/-	/-	/-	/-	/-
L	1788	/-	/-	/-	/-	/-

S Brg Wid = - Min Req = -
L Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearing L Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1620	F - G	0	-3088
C - D	0	-2700	G - H	0	-3059
D - E	0	-3160	H - I	0	-3014
E - F	0	-3163			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
S - R	920	0	O - N	3280	0
R - Q	2285	0	N - M	3059	0
Q - P	3153	0	M - L	1883	0
P - O	3160	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
S - B	0	-1284	F - N	0	-611
B - R	973	0	N - G	577	0
R - C	0	-925	H - M	0	-869
C - Q	577	0	M - I	2024	0
Q - D	54	-630	I - L	0	-2559
O - F	445	-163			

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP SS;
Webs: 4x2 SP #3;

Special Loads

------(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)
TC: From 100 plf at 0.00 to 100 plf at 12.88
BC: From 10 plf at 0.00 to 10 plf at 13.00
TC: 193 lb Conc. Load at 10.85
BC: 1140 lb Conc. Load at 10.46

Plating Notes

All plates are 3X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

End Vertical Attachment

Attach notched end vertical(s) to next end vertical using (3) qty. 10d box or (0.128"x3"min) gun nails, or (5) qty. 15-Gauge, 7/16" Crown, 2-1/2" length wire staples, through wide face; or (3) qty. 16-Gauge, 1" Crown (minimum), 1-1/2" length wire staples on each narrow face.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

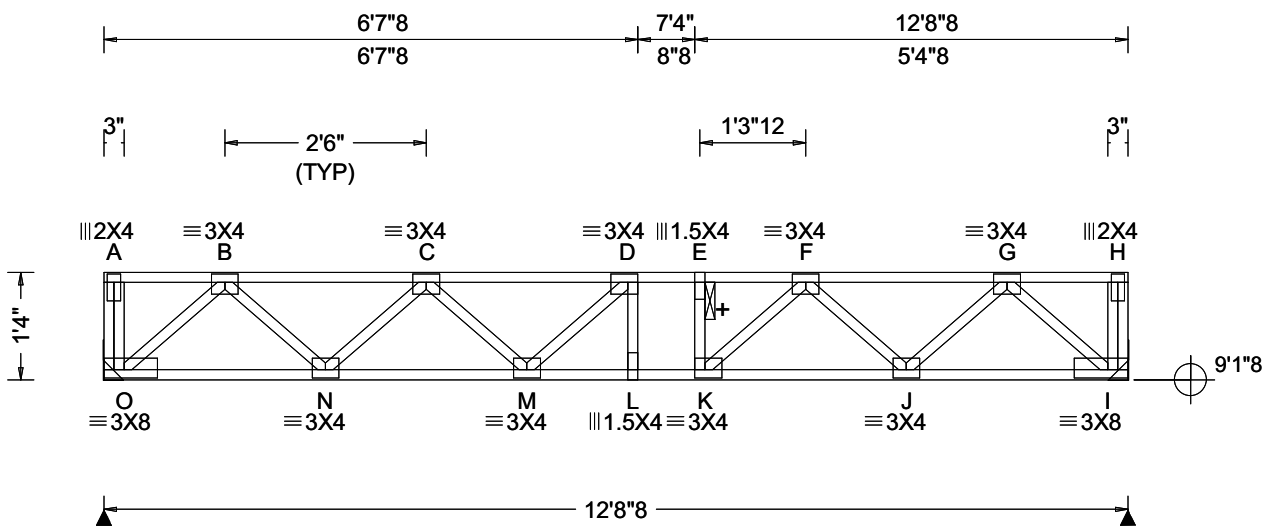
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. Refer to job's General Notes page for additional information.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61910 SY42 FROM: WEB	Ply: 1 Qty: 3	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF11		Cust: R 8976 JRef: 1XQI89760009 T39 DrwNo: 164.23.1354.14983 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	40.00
TCDL:	10.00
BCLL:	0.00
BCDL:	5.00
Des Ld:	55.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.075	D	999	480
VERT(CL): 0.103	D	999	360
HORZ(LL): 0.018	B	-	-
HORZ(TL): 0.024	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.439
Max BC CSI: 0.600
Max Web CSI: 0.288

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
O	699	/-	/-	/-	/-	/-
I	699	/-	/-	/-	/-	/-

O Brg Wid = - Min Req = -
I Brg Wid = - Min Req = -
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1078	E - F	0	-1668
C - D	0	-1606	F - G	0	-1068
D - E	0	-1674			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
O - N	644	0	L - K	1674	0
N - M	1486	0	K - J	1471	0
M - L	1678	0	J - I	648	0

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
O - B	0	-899	F - J	0	-560
B - N	604	0	J - G	584	0
N - C	0	-568	G - I	0	-906
K - F	391	0			

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

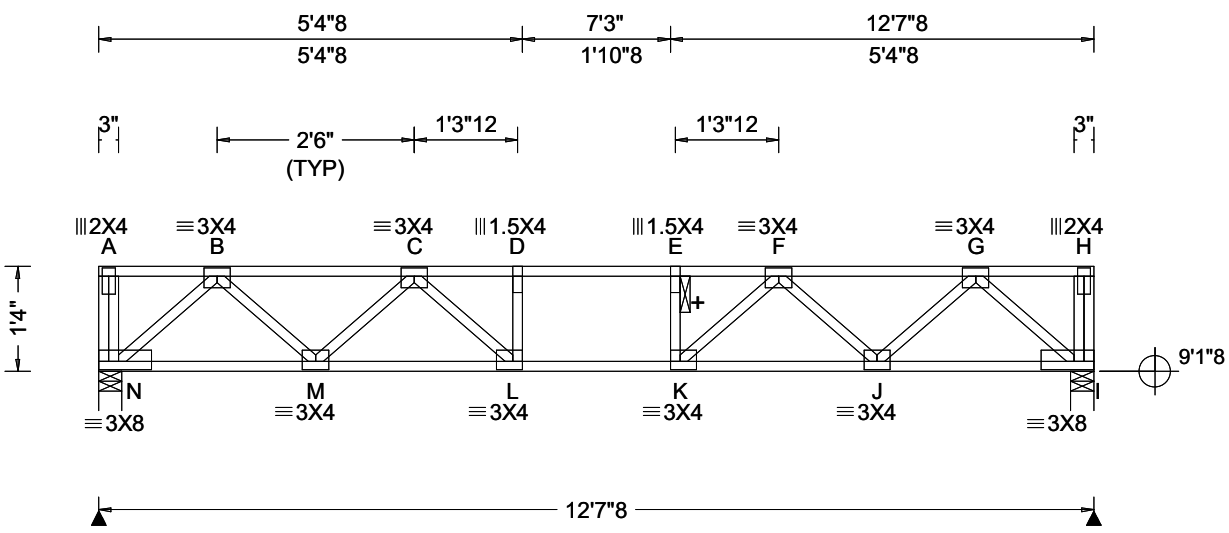
Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61911 SY42 FROM: WEB	Ply: 1 Qty: 7	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF12		Cust: R 8976 JRef: 1XQI89760009 T30 DrwNo: 164.23.1354.13530 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	40.00
TCDL:	10.00
BCLL:	0.00
BCDL:	5.00
Des Ld:	55.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
l: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.067	D	999	480
VERT(CL): 0.110	D	999	360
HORZ(LL): 0.017	B	-	-
HORZ(TL): 0.028	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.537
Max BC CSI: 0.539
Max Web CSI: 0.276

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
N	694 / -	/ -	/ -	/ -	/ -
I	694 / -	/ -	/ -	/ -	/ -

N Brg Wid = 3.5 Min Req = 1.5
I Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings N & I Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-1063	E - F	0	-1632
C - D	0	-1632	F - G	0	-1063
D - E	0	-1640			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
N - M	645	0	K - J	1451	0
M - L	1451	0	J - I	645	0
L - K	1640	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
N - B	0	-902	K - F	422	0
B - M	580	0	F - J	0	-540
M - C	0	-540	J - G	580	0
C - L	422	0	G - I	0	-902

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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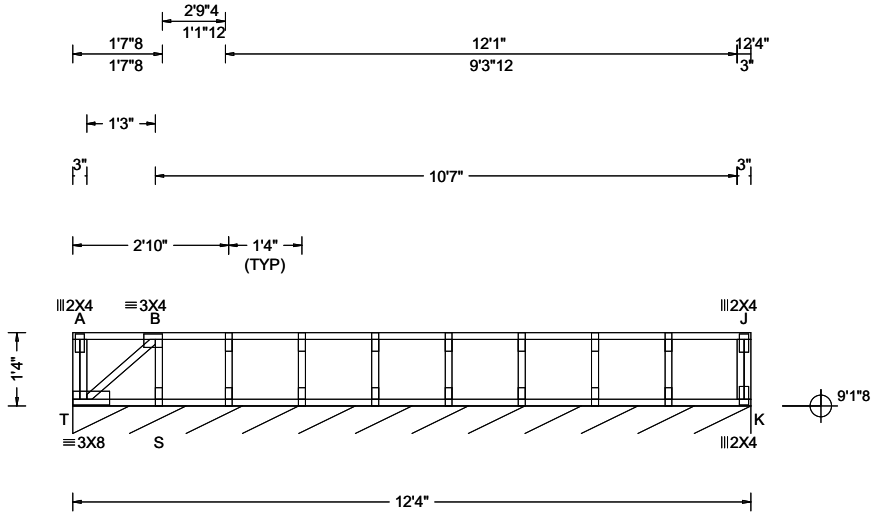
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61912 SY42 FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF13		Cust: R 8976 JRef: 1XQI89760009 T31 DrwNo: 164.23.1354.12090 / DF 06/13/2023	



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 B 999 480 VERT(CL): 0.001 B 999 360 HORZ(LL): 0.001 J - - HORZ(TL): 0.001 J - - Creep Factor: 2.0 Max TC CSI: 0.162 Max BC CSI: 0.024 Max Web CSI: 0.048 VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
K*	150	/-	/-	/-	/-	/-
K	Brg Wid = 148	Min Req = -				

Bearing T Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Bracing

Sheathing is required for any longitudinal(drag) forces. All connections to be designed by the building designer.

Plating Notes

All plates are 1.5X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

See detail STRBRIBR1014 for bracing and bridging recommendations.

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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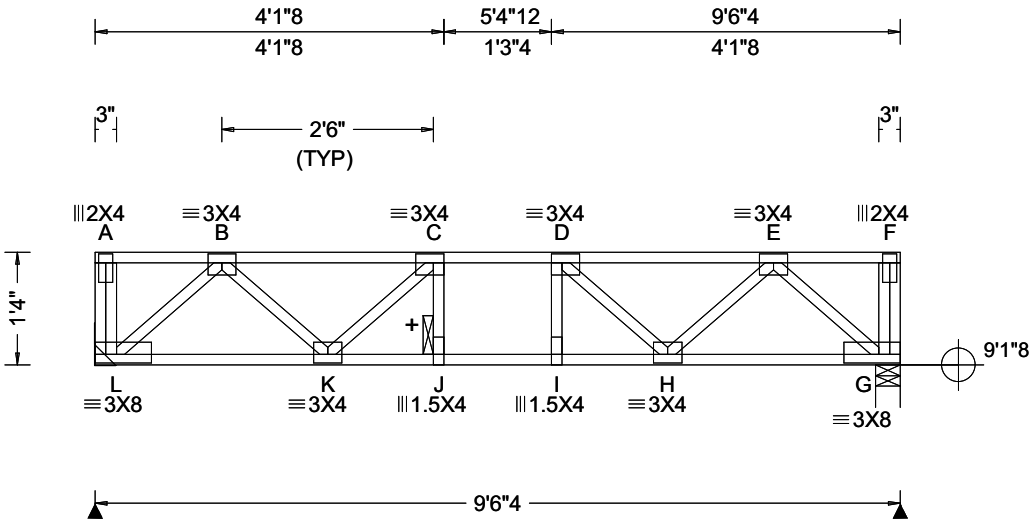
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61913 SY42 FROM: WEB	Ply: 1 Qty: 10	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF14		Cust: R 8976 JRef: 1XQI89760009 T45 DrwNo: 164.23.1354.10693 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	40.00
TCDL:	10.00
BCLL:	0.00
BCDL:	5.00
Des Ld:	55.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.026	J	999	360
VERT(CL): 0.044	J	999	240
HORZ(LL): 0.008	B	-	-
HORZ(TL): 0.013	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.298
Max BC CSI: 0.397
Max Web CSI: 0.159

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
L	524	/-	/-	/-	/-	/-
G	524	/-	/-	/-	/-	/-

L Brg Wid = - Min Req = -
G Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearing G Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	0	-710	D - E	0	-710
C - D	0	-924			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
L - K	470	0	I - H	924	0
K - J	924	0	H - G	470	0
J - I	924	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
L - B	0	-657	E - G	0	-657

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

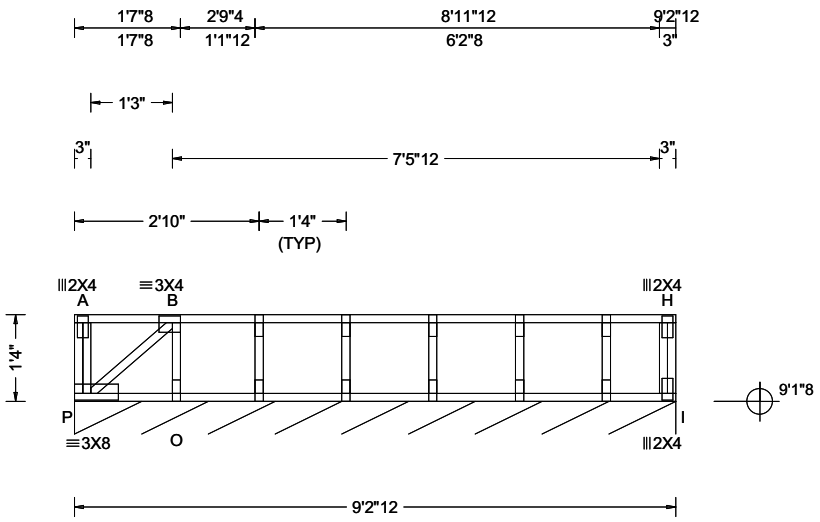
Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61914 SY42 FROM: WEB	Ply: 1 Qty: 2	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF15		Cust: R 8976 JRef: 1XQI89760009 T44 DrwNo: 164.23.1354.09377 / DF 06/13/2023	



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 40.00	Wind Std: NA	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: NA mph	Pf: NA Ce: NA	VERT(LL): 0.001 B 999 360
BCLL: 0.00	Enclosure: NA	Lu: NA Cs: NA	VERT(CL): 0.001 B 999 240
BCDL: 5.00	Category: NA	Snow Duration: NA	HORZ(LL): 0.001 H - -
Des Ld: 55.00	EXP: NA Kzt: NA		HORZ(TL): 0.001 H - -
NCBCLL: 10.00	Mean Height: NA ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: NA psf	IRC 2018	Max TC CSI: 0.158
Load Duration: 1.00	BCDL: NA psf	TPI Std: 2014	Max BC CSI: 0.024
Spacing: 24.0 "	MWFRS Parallel Dist: NA	Rep Fac: Varies by Ld Case	Max Web CSI: 0.045
	C&C Dist a: NA ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: NA	Plate Type(s):	
	I: NA GCpi: NA	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: NA		

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
I*	150	/-	/-	/-	/-	/-
I	Brg Wid = 110		Min Req = -			

Bearing P Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Bracing

Sheathing is required for any longitudinal(drag) forces. All connections to be designed by the building designer.

Plating Notes

All plates are 1.5X4 except as noted.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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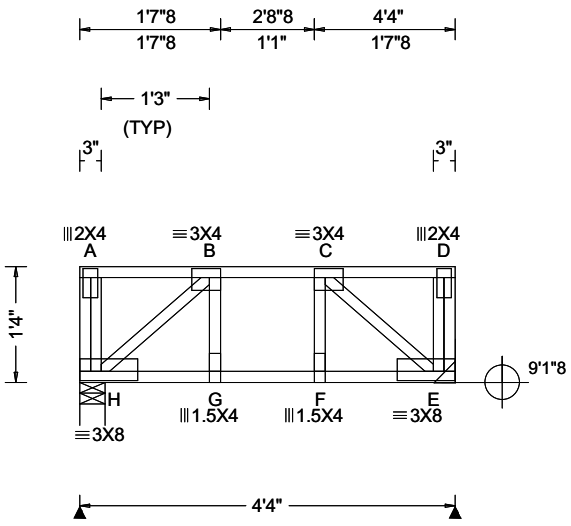
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61915 SY42 FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF16		Cust: R 8976 JRef: 1XQI89760009 T35 DrwNo: 164.23.1354.08220 / DF 06/13/2023	



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 40.00	Wind Std: NA	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: NA mph	Pf: NA Ce: NA	VERT(LL): 0.003 G 999 480
BCLL: 0.00	Enclosure: NA	Lu: NA Cs: NA	VERT(CL): 0.005 G 999 360
BCDL: 5.00	Category: NA	Snow Duration: NA	HORZ(LL): 0.002 B - -
Des Ld: 55.00	EXP: NA Kzt: NA		HORZ(TL): 0.003 B - -
NCBCLL: 10.00	Mean Height: NA ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: NA psf	IRC 2018	Max TC CSI: 0.087
Load Duration: 1.00	BCDL: NA psf	TPI Std: 2014	Max BC CSI: 0.080
Spacing: 24.0 "	MWFRS Parallel Dist: NA	Rep Fac: Yes	Max Web CSI: 0.053
	C&C Dist a: NA ft	FT/RT:12(0)/10(0)	
	Loc. from endwall: NA	Plate Type(s):	
	I: NA GCpi: NA	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: NA		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
H	238	/-	/-	/-	/-	/-
E	238	/-	/-	/-	/-	/-

H Brg Wid = 3.5 Min Req = 1.5
E Brg Wid = - Min Req = -
Bearing H Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

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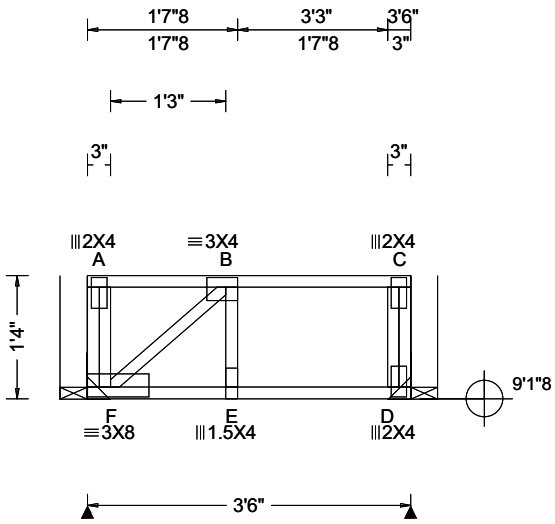
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61916 SY42 FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** SF17		Cust: R 8976 JRef: 1XQI89760009 T42 DrwNo: 164.23.1354.07100 / DF 06/13/2023



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 40.00	Wind Std: NA	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: NA mph	Pf: NA Ce: NA	VERT(LL): 0.053 E 674 480
BCLL: 0.00	Enclosure: NA	Lu: NA Cs: NA	VERT(CL): 0.073 E 495 360
BCDL: 5.00	Category: NA	Snow Duration: NA	HORZ(LL): 0.049 C - -
Des Ld: 55.00	EXP: NA Kzt: NA		HORZ(TL): 0.068 C - -
NCBCLL: 10.00	Mean Height: NA ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: NA psf	IRC 2018	Max TC CSI: 0.418
Load Duration: 1.00	BCDL: NA psf	TPI Std: 2014	Max BC CSI: 0.374
Spacing: 24.0 "	MWFRS Parallel Dist: NA	Rep Fac: Yes	Max Web CSI: 0.029
	C&C Dist a: NA ft	FT/RT:12(0)/10(0)	
	Loc. from endwall: NA	Plate Type(s):	
	I: NA GCpi: NA	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: NA		

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
F	193	/-	/-	/-	/-	/-
D	193	/-	/-	/-	/-	/-

F Brg Wid = - Min Req = -
D Brg Wid = - Min Req = -
Members not listed have forces less than 375#

Lumber

Top chord: 4x2 SP #2;
Bot chord: 4x2 SP #2;
Webs: 4x2 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Additional Notes

Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.

Truss must be installed as shown with top chord up.

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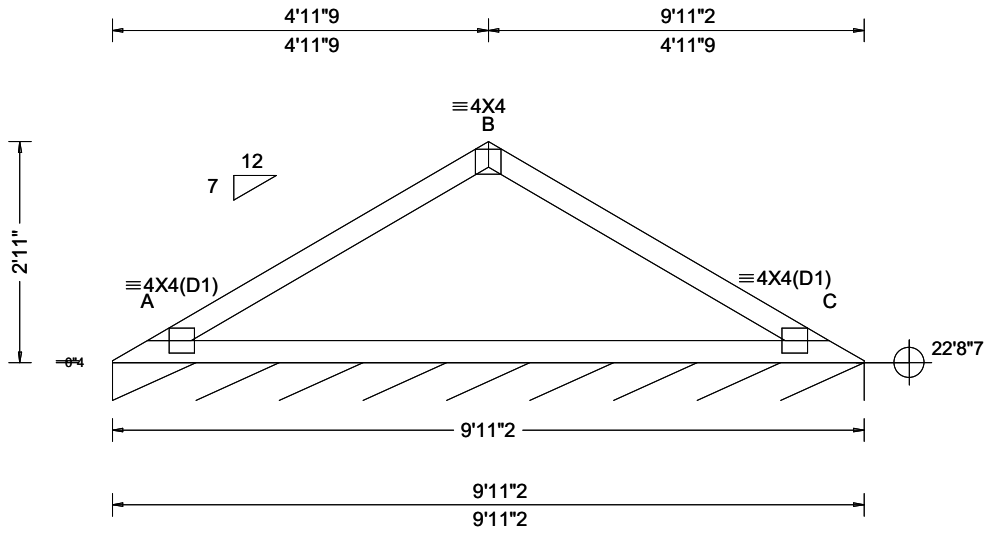
SEQN: 61877 VAL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** V3		Cust: R 8976 JRef: 1XQI89760009 T47 DrwNo: 164.23.1353.52653 / DF 06/13/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.15 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 115 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 24.31 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: 10.0 Ct: 1.1 CAT: II Pf: 7.7 Ce: 1.0 Lu: - Cs: 1.00 Snow Duration: 1.15 Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.042 C 999 360 VERT(CL): 0.088 C 999 240 HORZ(LL): -0.018 C - - HORZ(TL): 0.037 C - - Creep Factor: 2.0 Max TC CSI: 0.594 Max BC CSI: 0.601 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	80	/-	/-	/39	/18	/4

Wind reactions based on C&C
C Brg Wid = 119 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	171	-440	B - C	171	-440

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VALTN160118 for valley details.

06/13/2023
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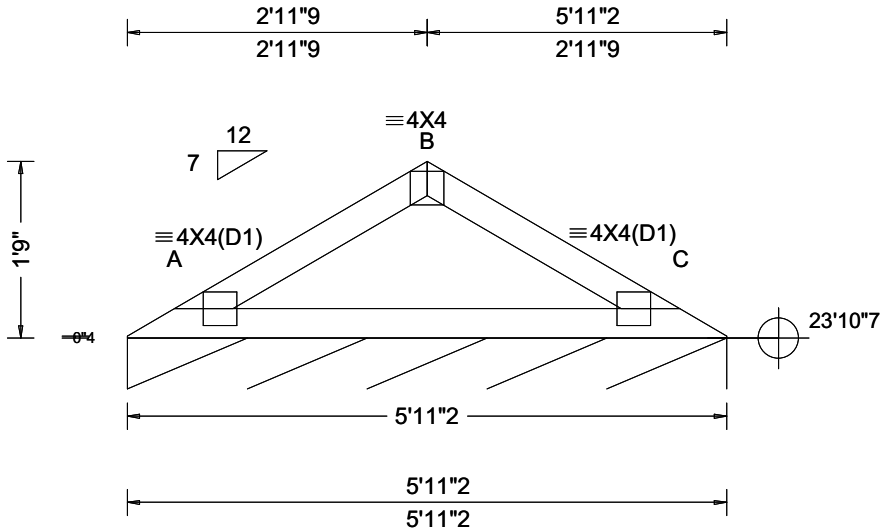
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61879 VAL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** V4		Cust: R 8976 JRef: 1XQI89760009 T48 DrwNo: 164.23.1353.47600 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 24.89 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.010	C	999	360
VERT(CL): 0.019	C	999	240
HORZ(LL): -0.004	C	-	-
HORZ(TL): 0.008	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.168
Max BC CSI: 0.199
Max Web CSI: 0.000

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	80	/-	/-	/37	/23	/4

Wind reactions based on C&C
C Brg Wid = 71.1 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VALTN160118 for valley details.

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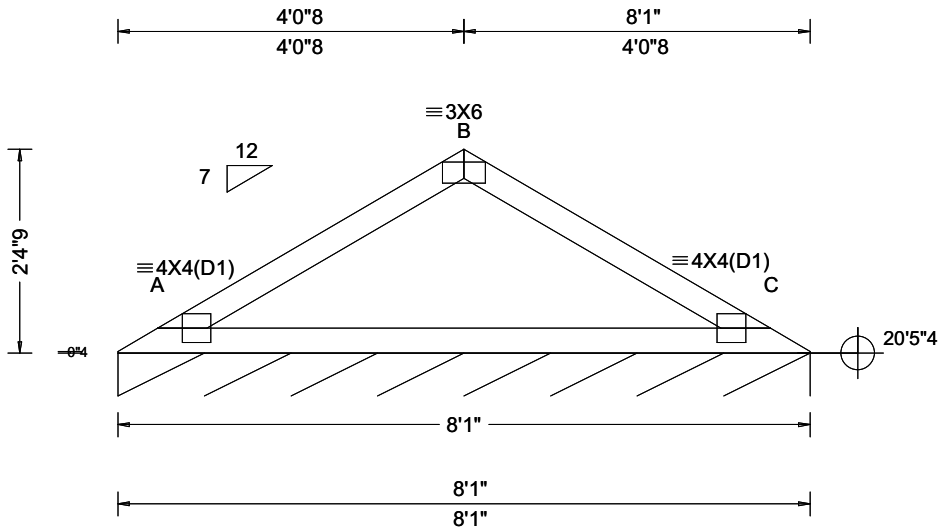
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61881 VAL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** V3B		Cust: R 8976 JRef: 1XQI89760009 T34 DrwNo: 164.23.1353.50257 / DF 06/13/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.15 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 115 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 21.77 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: 10.0 Ct: 1.1 CAT: II Pf: 7.7 Ce: 1.0 Lu: - Cs: 1.00 Snow Duration: 1.15 Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.024 C 999 360 VERT(CL): 0.048 C 999 240 HORZ(LL): -0.010 C - - HORZ(TL): 0.020 C - - Creep Factor: 2.0 Max TC CSI: 0.396 Max BC CSI: 0.393 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	80	/-	/-	/38	/19	/4

Wind reactions based on C&C
C Brg Wid = 97.0 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

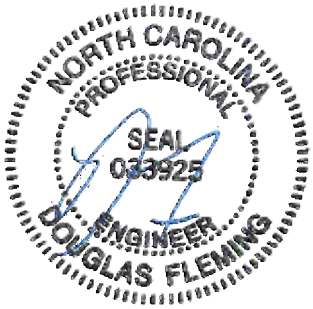
Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VALTN160118 for valley details.



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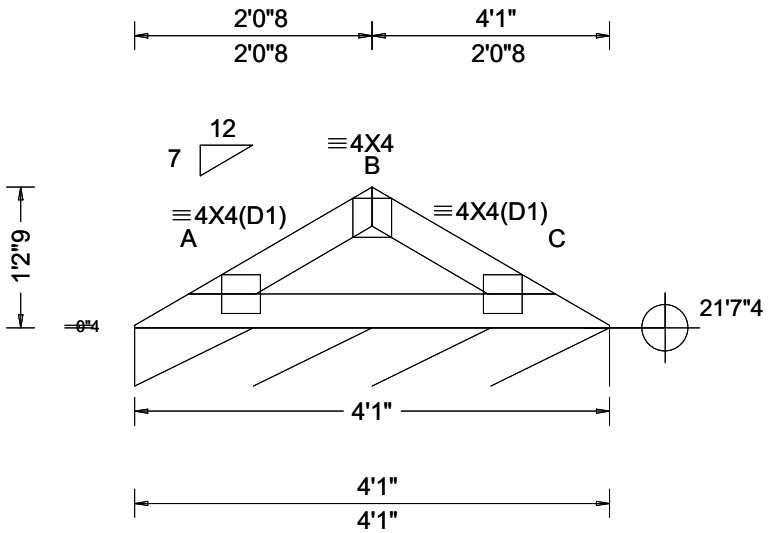
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61883 VAL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** V3C		Cust: R 8976 JRef: 1XQI89760009 T50 DrwNo: 164.23.1353.49137 / DF 06/13/2023



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: 10.0 Ct: 1.1 CAT: II	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 115 mph	Pf: 7.7 Ce: 1.0	VERT(LL): 0.004 C 999 360
BCLL: 0.00	Enclosure: Closed	Lu: - Cs: 1.00	VERT(CL): 0.007 C 999 240
BCDL: 10.00	Risk Category: II	Snow Duration: 1.15	HORZ(LL): -0.001 C - -
Des Ld: 40.00	EXP: B Kzt: NA		HORZ(TL): 0.003 C - -
NCBCLL: 10.00	Mean Height: 22.36 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	IRC 2018	Max TC CSI: 0.083
Load Duration: 1.15	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.107
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.000
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: Any	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: 1.60		

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	80	/-	/-	/36	/19	/3

Wind reactions based on C&C
C Brg Wid = 49.0 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VALTN160118 for valley details.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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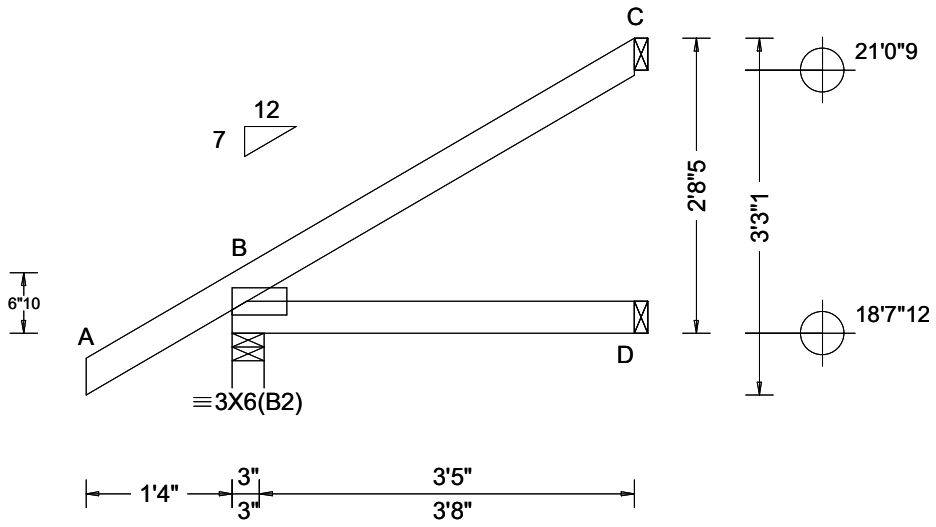
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61862 EJAC FROM: WEB	Ply: 1 Qty: 27	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** EJ1		Cust: R 8976 JRef: 1XQI89760009 T54 DrwNo: 164.23.1354.33793 / DF 06/13/2023	



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: 10.0 Ct: 1.1 CAT: II	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 115 mph	Pf: 7.7 Ce: 1.0	VERT(LL): NA
BCLL: 0.00	Enclosure: Closed	Lu: - Cs: 1.00	VERT(CL): NA
BCDL: 10.00	Risk Category: II	Snow Duration: 1.15	HORZ(LL): -0.001 C - -
Des Ld: 40.00	EXP: B Kzt: NA		HORZ(TL): 0.002 B - -
NCBCLL: 10.00	Mean Height: 19.88 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	IRC 2018	Max TC CSI: 0.171
Load Duration: 1.15	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.131
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.000
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: Any	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	253	/-	/-	/145	/106	/153
D	68	/-	/-	/35	/-	/-
C	90	/-	/-	/46	/81	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = 1.5 Min Req = -
C Brg Wid = 1.5 Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

Provide (2) 0.131"x3.0", min. toe-nails at top chord.
Provide (2) 0.131"x3.0", min. toe-nails at bottom chord.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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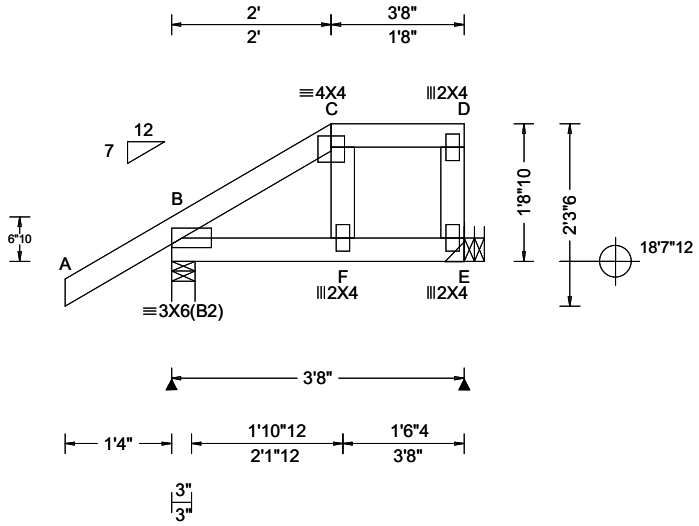
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61869 NEJA FROM: WEB	Ply: 1 Qty: 3	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** EJ2	Cust: R 8976 JRef: 1XQI89760009 T16 DrwNo: 164.23.1354.32577 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 19.39 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.012	F	999	360
VERT(CL): 0.024	F	999	240
HORZ(LL): 0.007	C	-	-
HORZ(TL): 0.014	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.161
Max BC CSI: 0.255
Max Web CSI: 0.054

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	282	/-	/-	/-	/28	/-
E	163	/-	/-	/-	/5	/-

Wind reactions based on MWFRS
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
E Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Special Loads

------(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)

TC: From	60 plf at	-1.33 to	60 plf at	3.67
BC: From	5 plf at	-1.33 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	3.67

TC: 31 lb Conc. Load at 2.06
BC: 35 lb Conc. Load at 2.06

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Wind loads and reactions based on MWFRS.
Right end vertical not exposed to wind pressure.
Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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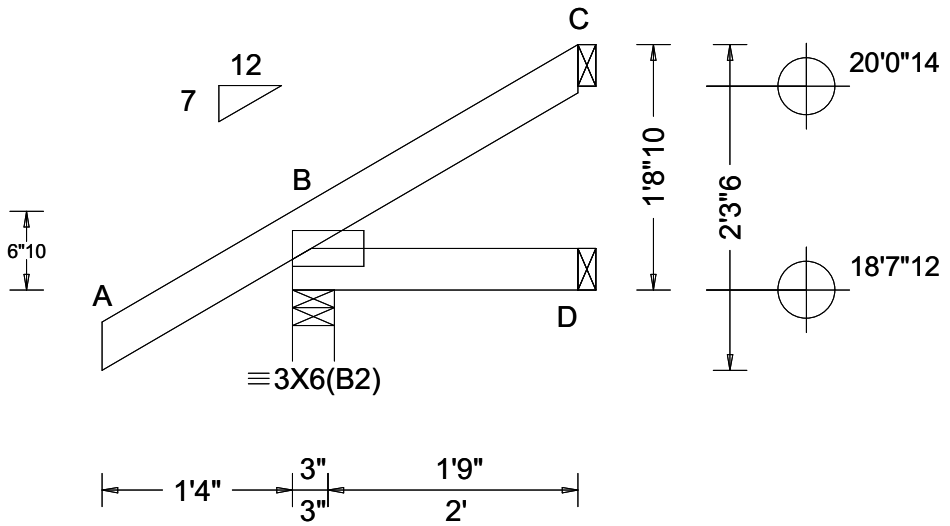
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61863 EJAC FROM: WEB	Ply: 1 Qty: 2	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** EJ3		Cust: R 8976 JRef: 1XQI89760009 T52 DrwNo: 164.23.1354.31390 / DF 06/13/2023	



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 19.39 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	NA		
VERT(CL):	NA		
HORZ(LL):	-0.001 C	-	-
HORZ(TL):	0.001 C	-	-

Creep Factor: 2.0
Max TC CSI: 0.132
Max BC CSI: 0.031
Max Web CSI: 0.000

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	202	/-	/-	/116	/113	/107
D	35	/-	/-	/18	/-	/-
C	31	/-	/-	/14	/46	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = 1.5 Min Req = -
C Brg Wid = 1.5 Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

Provide (2) 0.131"x3.0", min. toe-nails at top chord.
Provide (2) 0.131"x3.0", min. toe-nails at bottom chord.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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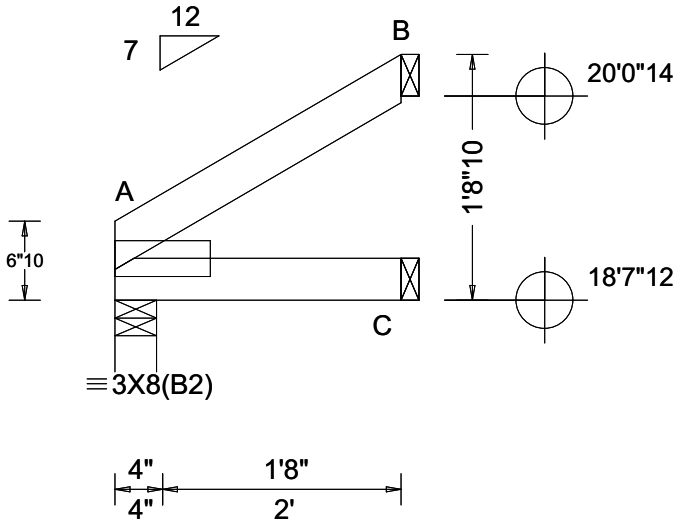
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61864 EJAC FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** EJ3A		Cust: R 8976 JRef: 1XQI89760009 T55 DrwNo: 164.23.1354.30207 / DF 06/13/2023	



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: 10.0 Ct: 1.1 CAT: II	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 115 mph	Pf: 7.7 Ce: 1.0	VERT(LL): NA
BCLL: 0.00	Enclosure: Closed	Lu: - Cs: 1.00	VERT(CL): NA
BCDL: 10.00	Risk Category: II	Snow Duration: 1.15	HORZ(LL): -0.001 B - -
Des Ld: 40.00	EXP: B Kzt: NA		HORZ(TL): 0.001 B - -
NCBCLL: 10.00	Mean Height: 19.78 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	IRC 2018	Max TC CSI: 0.059
Load Duration: 1.15	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.036
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.000
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: Any	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	83	/-	/-	/45	/8	/65
C	38	/-	/-	/20	/-	/-
B	56	/-	/-	/29	/64	/-

Wind reactions based on C&C
A Brg Wid = 3.5 Min Req = 1.5 (Truss)
C Brg Wid = 1.5 Min Req = -
B Brg Wid = 1.5 Min Req = -
Bearing A Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

Provide (2) 0.131"x3.0", min. toe-nails at top chord.
Provide (2) 0.131"x3.0", min. toe-nails at bottom chord.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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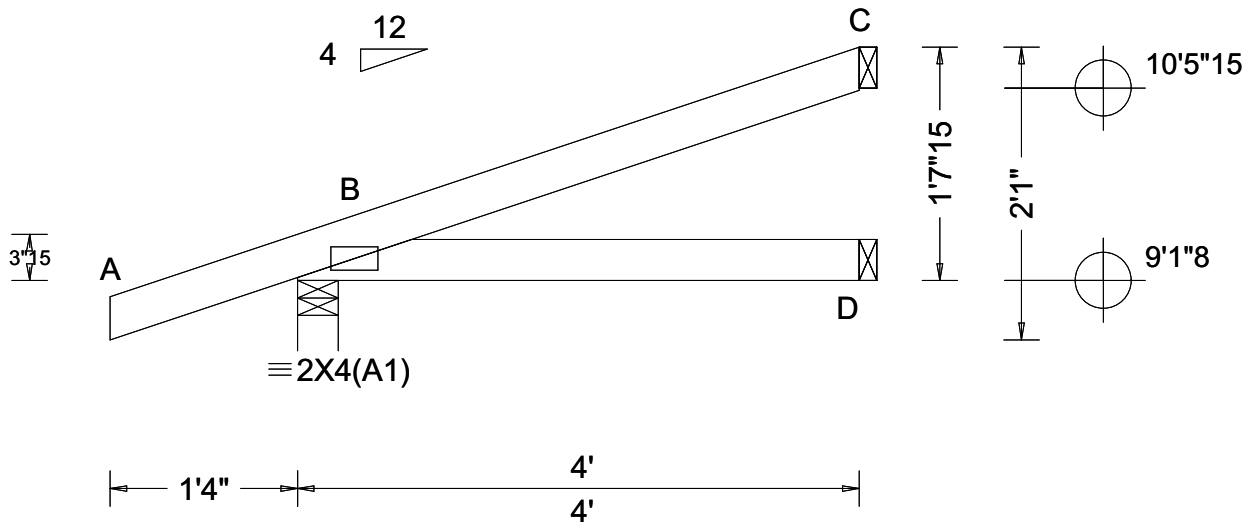
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61937 EJAC FROM: WEB	Ply: 1 Qty: 5	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** EJA		Cust: R 8976 JRef: 1XQI89760009 T58 DrwNo: 164.23.1354.29070 / DF 06/13/2023



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: 10.0 Ct: 1.1 CAT: II	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 115 mph	Pf: 7.7 Ce: 1.0	VERT(LL): NA
BCLL: 0.00	Enclosure: Closed	Lu: - Cs: 1.00	VERT(CL): NA
BCDL: 10.00	Risk Category: II	Snow Duration: 1.15	HORZ(LL): 0.002 B - -
Des Ld: 40.00	EXP: B Kzt: NA		HORZ(TL): 0.004 B - -
NCBCLL: 10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	IRC 2018	Max TC CSI: 0.177
Load Duration: 1.15	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.129
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.000
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: Any	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 21.02.01.1216.14
	Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	270 /-	/-	/151	/185	/119
D	68 /-	/-	/37	/-	/-
C	94 /-	/-	/43	/87	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = 1.5 Min Req = -
C Brg Wid = 1.5 Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

Provide (2) 0.131"x3.0", min. toe-nails at top chord.
Provide (2) 0.131"x3.0", min. toe-nails at bottom chord.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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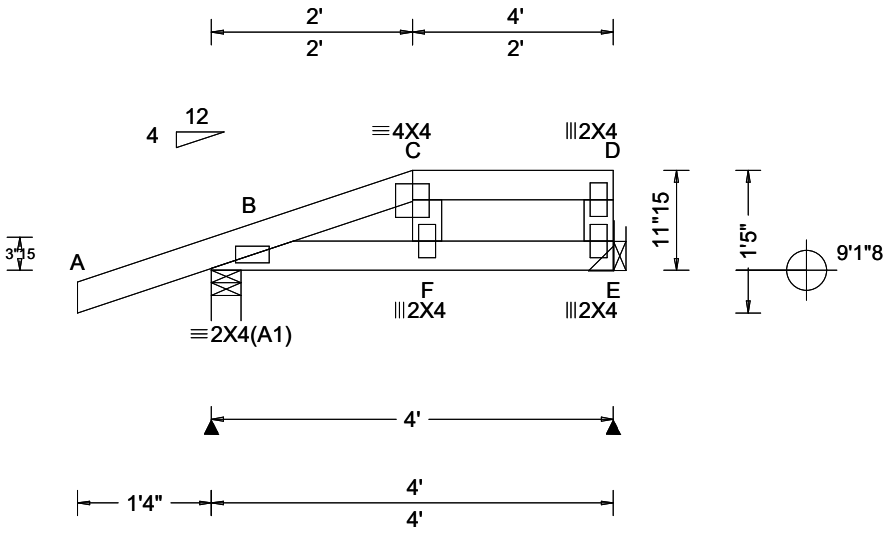
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61943 NEJA FROM: WEB	Ply: 1 Qty: 2	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** EJB	Cust: R 8976 JRef: 1XQI89760009 T60 DrwNo: 164.23.1354.27917 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.015 F	999	360
VERT(CL):	0.028 F	999	240
HORZ(LL):	0.005 C	-	-
HORZ(TL):	0.009 C	-	-

Creep Factor: 2.0
Max TC CSI: 0.152
Max BC CSI: 0.222
Max Web CSI: 0.059

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	297	/-	/-	/-	/13	/-
E	163	/-	/-	/4	/-	/-

Wind reactions based on MWFRS
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
E Brg Wid = - Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Special Loads

------(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)

TC: From	60 plf at	-1.33 to	60 plf at	4.00
BC: From	4 plf at	-1.33 to	4 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	4.00

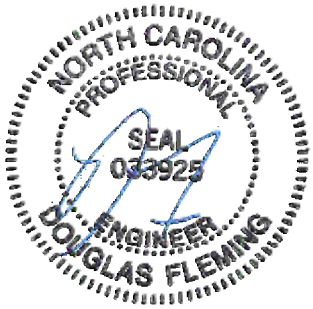
TC: 26 lb Conc. Load at 2.06
BC: 27 lb Conc. Load at 2.06

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Wind loads and reactions based on MWFRS.
Right end vertical not exposed to wind pressure.
Wind loading based on both gable and hip roof types.



06/13/2023
ABCD Engineering, PLLC NC COA 0838

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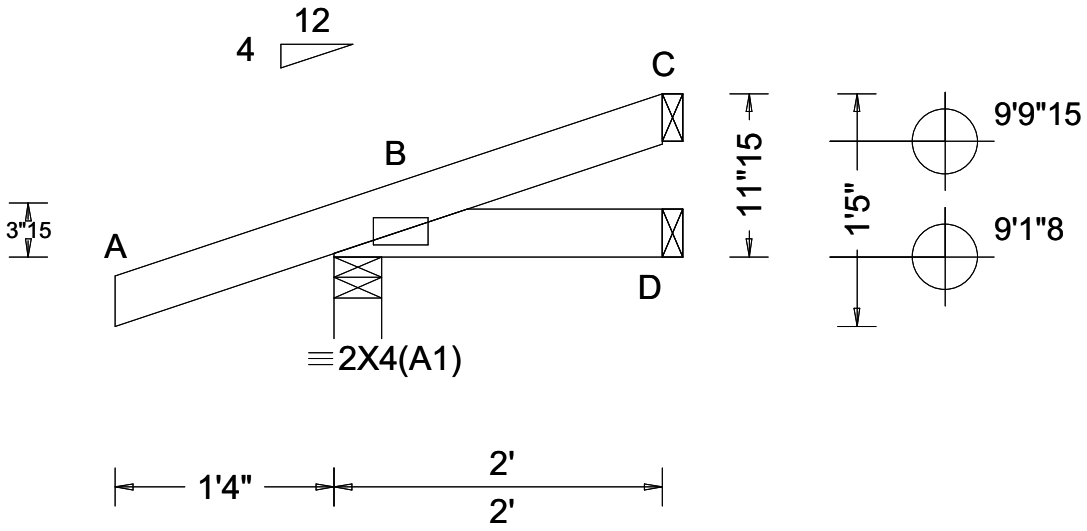
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61939 EJAC FROM: WEB	Ply: 1 Qty: 2	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** EJC	Cust: R 8976 JRef: 1XQI89760009 T8 DrwNo: 164.23.1354.26767 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	NA		
VERT(CL):	NA		
HORZ(LL):	0.000 B	-	-
HORZ(TL):	0.000 B	-	-

Creep Factor: 2.0
Max TC CSI: 0.128
Max BC CSI: 0.018
Max Web CSI: 0.000

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	209	/-	/-	/117	/172	/81
D	27	/-	/-	/15	/-	/-
C	26	/-	/-	/13	/32	/-

Wind reactions based on C&C
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = 1.5 Min Req = -
C Brg Wid = 1.5 Min Req = -
Bearing B Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Wind loading based on both gable and hip roof types.

Additional Notes

Provide (2) 0.131"x3.0", min. toe-nails at top chord.
Provide (2) 0.131"x3.0", min. toe-nails at bottom chord.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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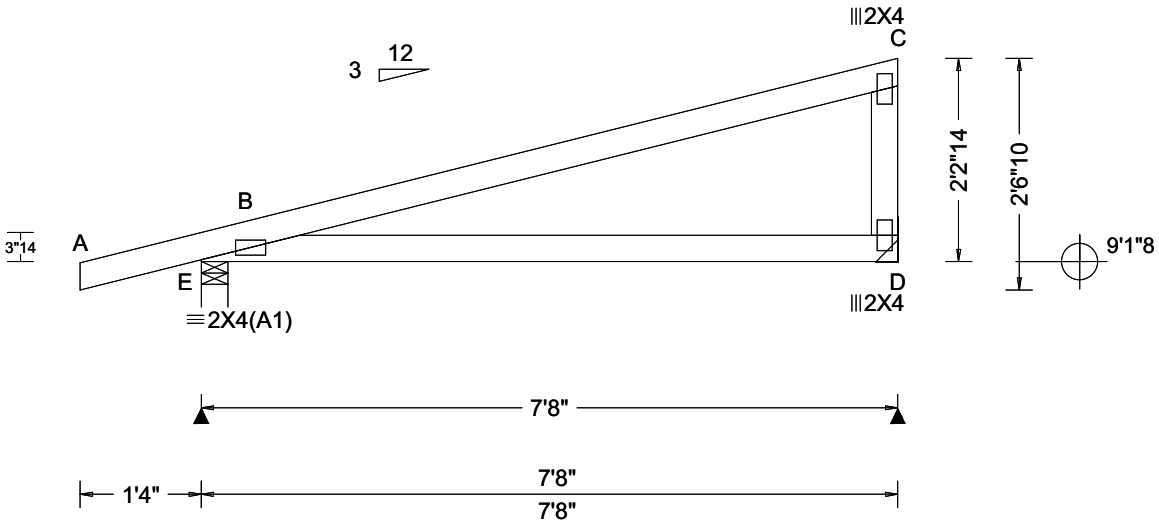
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61865 MONO FROM: WEB	Ply: 1 Qty: 7	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** M2	Cust: R 8976 JRef: 1XQI89760009 T3 DrwNo: 164.23.1354.23233 / DF 06/13/2023



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	NA		
VERT(CL):	NA		
HORZ(LL):	0.019 B	-	-
HORZ(TL):	0.036 B	-	-

Creep Factor: 2.0
Max TC CSI: 0.796
Max BC CSI: 0.547
Max Web CSI: 0.295

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
E	407	/-	/-	/203	/208	/128
D	291	/-	/-	/150	/137	/-

Wind reactions based on C&C
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = - Min Req = -
Bearing E Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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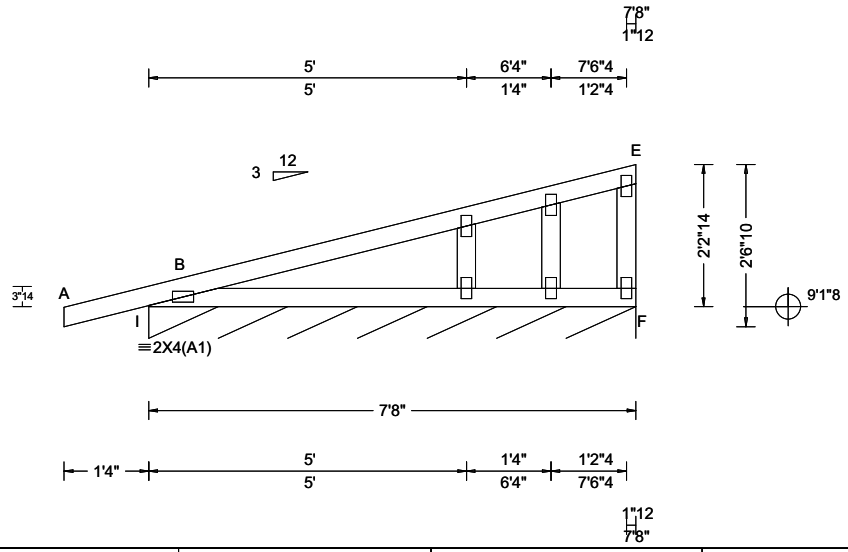
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61866 GABL FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** M2GE		Cust: R 8976 JRef: 1XQI89760009 T4 DrwNo: 164.23.1354.22120 / DF 06/13/2023



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**	**▲Maximum Reactions (lbs), or *=PLF**
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.15 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 115 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: 10.0 Ct: 1.1 CAT: II Pf: 7.7 Ce: 1.0 Lu: - Cs: 1.00 Snow Duration: 1.15 Building Code: IRC 2018 TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.012 B 999 360 VERT(CL): 0.021 B 999 240 HORZ(LL): 0.004 B - - HORZ(TL): 0.006 B - - Creep Factor: 2.0 Max TC CSI: 0.309 Max BC CSI: 0.177 Max Web CSI: 0.050 VIEW Ver: 21.02.01.1216.14	Gravity / Non-Gravity Loc R+ / R- / Rh / Rw / U / RL I* 114 /- /- /56 /66 /23 Wind reactions based on C&C I Brg Wid = 92.0 Min Req = - Bearing I is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Plating Notes

All plates are 2X4 except as noted.

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 3.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS A11515ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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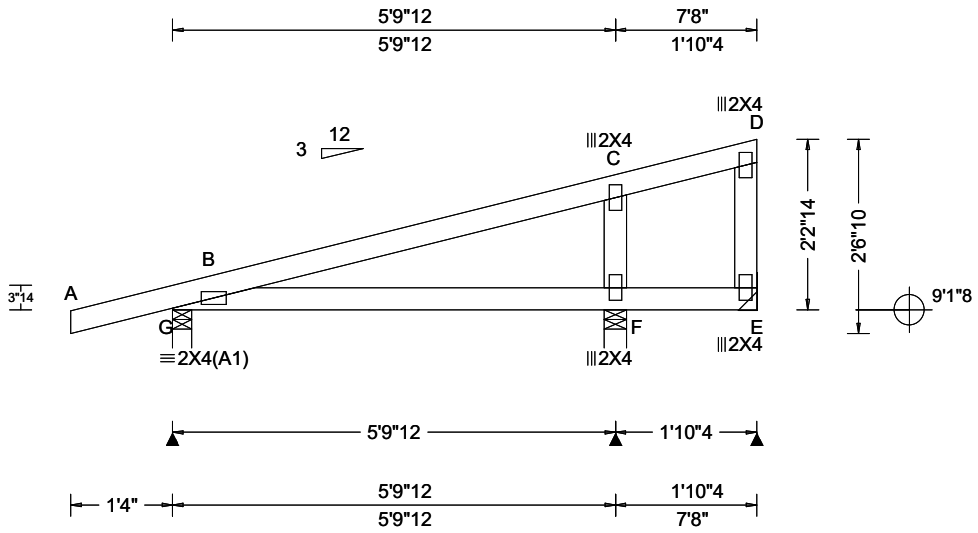
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61867 MONO FROM: WEB	Ply: 1 Qty: 3	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** M3		Cust: R 8976 JRef: 1XQI89760009 T6 DrwNo: 164.23.1354.20923 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.017 B	999	360
VERT(CL):	0.034 B	999	240
HORZ(LL):	0.005 B	-	-
HORZ(TL):	0.010 B	-	-

Creep Factor: 2.0
Max TC CSI: 0.352
Max BC CSI: 0.243
Max Web CSI: 0.065

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
G	298	/-	/-	/147	/159	/128
F	442	/-	/-	/232	/204	/-
E	21	/-77	/-	/16	/24	/-

Wind reactions based on C&C
G Brg Wid = 3.0 Min Req = 1.5 (Truss)
F Brg Wid = 3.5 Min Req = 1.5 (Truss)
E Brg Wid = - Min Req = -
Bearings G & F Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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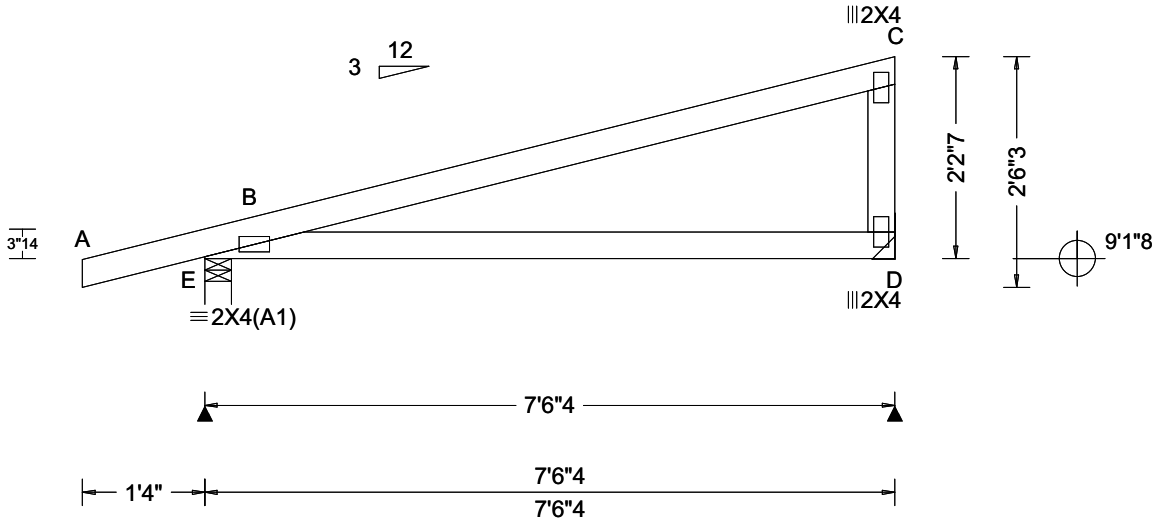
ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 61868 MONO FROM: WEB	Ply: 1 Qty: 1	**Job Number:** 76391 .1L1 ,3130B ,03/ ,R/01 **Truss Label:** M4		Cust: R 8976 JRef: 1XQI89760009 T9 DrwNo: 164.23.1354.19313 / DF 06/13/2023



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 115 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 10.0 Ct: 1.1 CAT: II
Pf: 7.7 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2018
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	NA		
VERT(CL):	NA		
HORZ(LL):	0.017 B	-	-
HORZ(TL):	0.034 B	-	-

Creep Factor: 2.0
Max TC CSI: 0.761
Max BC CSI: 0.526
Max Web CSI: 0.278

VIEW Ver: 21.02.01.1216.14

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
E	402	/-	/-	/200	/209	/127
D	285	/-	/-	/147	/136	/-

Wind reactions based on C&C
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = - Min Req = -
Bearing E Fcperp = 565psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Member design based on both MWFRS and C&C.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

06/13/2023
ABCD Engineering, PLLC NC COA 0838

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ALPINE
ANITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

Valley Detail - ASCE 7-16: 30' Mean Height, Enclosed, Exp. C, Kzt=1.00

Top Chord 2x4 SP #2N, SPF #1/#2, DF-L #2 or better.
Bot Chord 2x4 SP #2N or SPF #1/#2 or better.
Webs 2x4 SP #3, SPF #1/#2, DF-L #2 or better.

** Attach each valley to every supporting truss with:
(2) 16d box (0.135" x 3.5") nails toe-nailed for ASCE 7-16, 30' Mean Height, Enclosed Building, Exp. C, Wind TC DL=5 psf, Kzt = 1.00, Max. Wind Speed based on supporting truss material at connection location:
170 mph for SP (G = 0.55, min.),
155 mph for DF-L (G = 0.50, min.), or
120 mph for HF & SPF (G = 0.42, min.).

Maximum top chord pitch is 10/12 for supporting trusses below valley trusses.

Bottom chord of valley trusses may be square or pitched cut as shown.

Valleys short enough to be cut as solid triangular members from a single 2x6, or larger as required, shall be permitted in lieu of fabricating from separate 2x4 members.

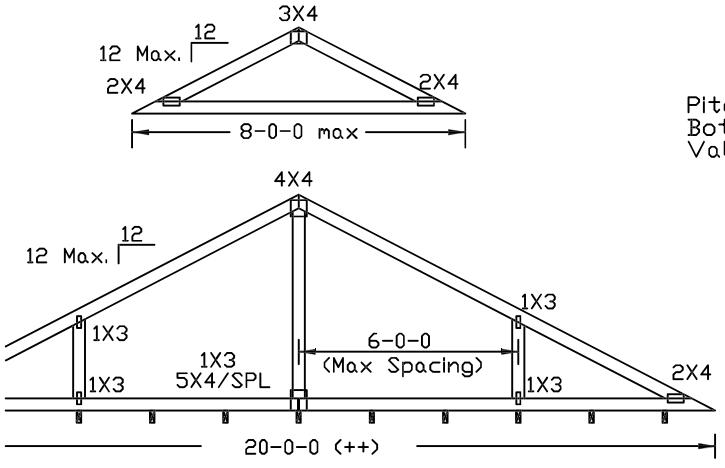
All plates shown are Alpine Wave Plates.

Unless specified otherwise on engineer's sealed design, for vertical valley webs taller than 7-9" apply 2x4 "T" reinforcement, 80% length of web, same species and grade or better, attached with 10d box (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous Lateral Restraint applied at mid-length of web is permitted with diagonal bracing as shown in DRWG BRCLBANC1014.

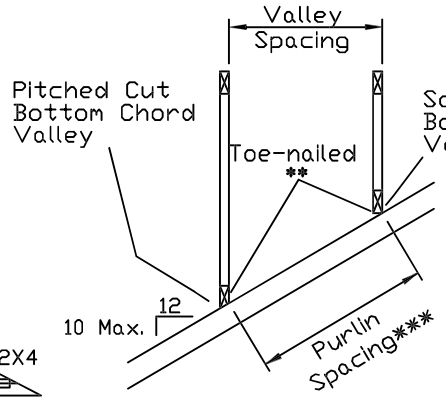
Top chord of truss beneath valley set must be braced with:
properly attached, rated sheathing applied prior to valley truss installation.
Or
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design
Or
By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design.

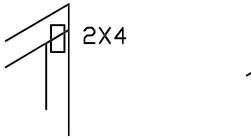
*** Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.

++ Larger spans may be built as long as the vertical height does not exceed 14'-0".



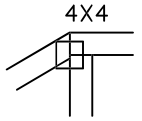
Supporting trusses at 24" o.c. maximum spacing.



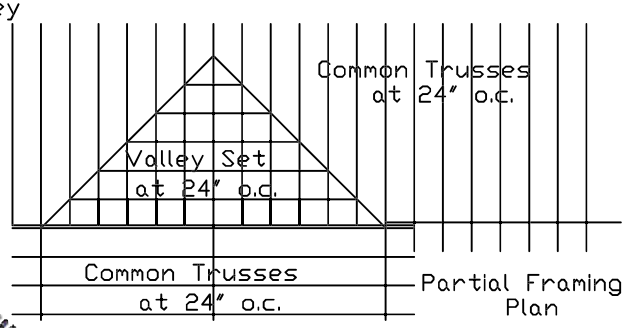


Square Cut Bottom Chord Valley

Stubbed Valley End Detail



Optional Hip Joint Detail



Partial Framing Plan

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

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NORTH CAROLINA PROFESSIONAL SEAL 033925 ENGINEER DOUGLAS FLEMING

06/13/2023
ABCD Engineering, PLLC NC COA 0838

TC LL	30	30	40	PSF
TC DL	20	15	7	PSF
BC DL	10	10	10	PSF
BC LL	0	0	0	PSF
TOT. LD.	60	55	57	PSF
DUR. FAC.	1.25	1.33	1.15	1.15
SPACING		24.0"		

REF	VALLEY DETAIL
DATE	01/26/2018
DRWG	VALTN160118

Gable Stud Reinforcement Detail
ASCE 7-16: 115 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Max Gable Vertical Length	2x4 Gable Vertical Spacing	Species	Brace Grade	No Braces	(1) 1x4 "L" Brace * Group A	(1) 1x4 "L" Brace * Group B	(1) 2x4 "L" Brace * Group A	(1) 2x4 "L" Brace * Group B	(2) 2x4 "L" Brace ** Group A	(2) 2x4 "L" Brace ** Group B	(1) 2x6 "L" Brace * Group A	(1) 2x6 "L" Brace * Group B	(2) 2x6 "L" Brace ** Group A	(2) 2x6 "L" Brace ** Group B
	24" o.c.	SPF HF	#1 / #2	4' 9"	8' 0"	8' 4"	9' 6"	9' 10"	11' 3"	11' 9"	14' 0"	14' 0"	14' 0"	14' 0"
			#3	4' 6"	7' 6"	8' 0"	9' 4"	9' 9"	11' 2"	11' 7"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	4' 6"	7' 5"	7' 11"	9' 4"	9' 9"	11' 2"	11' 7"	14' 0"	14' 0"	14' 0"	14' 0"
			Standard	4' 6"	6' 5"	6' 10"	8' 7"	9' 2"	11' 2"	11' 7"	13' 5"	14' 0"	14' 0"	14' 0"
		SP DFL	#1	4' 11"	8' 2"	8' 5"	9' 7"	10' 0"	11' 5"	11' 10"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	4' 9"	8' 0"	8' 4"	9' 6"	9' 10"	11' 3"	11' 9"	14' 0"	14' 0"	14' 0"	14' 0"
			#3	4' 7"	6' 9"	7' 2"	9' 0"	9' 7"	11' 3"	11' 8"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	4' 7"	6' 9"	7' 2"	9' 0"	9' 7"	11' 3"	11' 8"	14' 0"	14' 0"	14' 0"	14' 0"
			Standard	4' 6"	6' 0"	6' 4"	7' 11"	8' 6"	10' 9"	11' 6"	12' 6"	13' 4"	14' 0"	14' 0"
	16" o.c.	SPF HF	#1 / #2	5' 5"	9' 2"	9' 6"	10' 10"	11' 3"	12' 11"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"
			#3	5' 2"	9' 1"	9' 6"	10' 9"	11' 2"	12' 9"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	5' 2"	9' 1"	9' 5"	10' 9"	11' 2"	12' 9"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
			Standard	5' 2"	7' 10"	8' 4"	10' 6"	11' 2"	12' 9"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		SP DFL	#1	5' 8"	9' 4"	9' 8"	11' 0"	11' 5"	13' 1"	13' 7"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	5' 5"	9' 2"	9' 6"	10' 10"	11' 3"	12' 11"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"
			#3	5' 3"	8' 3"	8' 10"	10' 9"	11' 2"	12' 10"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	5' 3"	8' 3"	8' 10"	10' 9"	11' 2"	12' 10"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"
			Standard	5' 2"	7' 4"	7' 9"	9' 9"	10' 5"	12' 9"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
	12" o.c.	SPF HF	#1 / #2	5' 11"	10' 1"	10' 6"	11' 11"	12' 5"	12' 11"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
			#3	5' 8"	10' 0"	10' 4"	11' 10"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	5' 8"	10' 0"	10' 4"	11' 10"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
			Standard	5' 8"	9' 1"	9' 8"	11' 10"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		SP DFL	#1	6' 3"	10' 3"	10' 8"	12' 1"	12' 7"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	5' 11"	10' 1"	10' 6"	11' 11"	12' 5"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
			#3	5' 10"	9' 7"	10' 2"	11' 10"	12' 4"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	5' 10"	9' 7"	10' 2"	11' 10"	12' 4"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
			Standard	5' 8"	8' 5"	9' 0"	11' 3"	12' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"

Bracing Group Species and Grades:

Group A:

Spruce-Pine-Fir		Hem-Fir	
#1 / #2	Standard	#2	Stud
#3	Stud	#3	Standard

Douglas Fir-Larch	Southern Pine***
#3	#3
Stud	Stud
Standard	Standard

Group B:

Hem-Fir
#1 & Btr
#1

Douglas Fir-Larch	Southern Pine***
#1	#1
#2	#2

1x4 Braces shall be SRB (Stress-Rated Board).

***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

Provide uplift connections for 60 plf over continuous bearing (5 psf TC Dead Load).

Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12" plywood overhang.

Attach "L" braces with 10d (0.128"x3.0" min) nails.

* For (1) "L" brace: space nails at 2" o.c. in 18" end zones and 4" o.c. between zones.

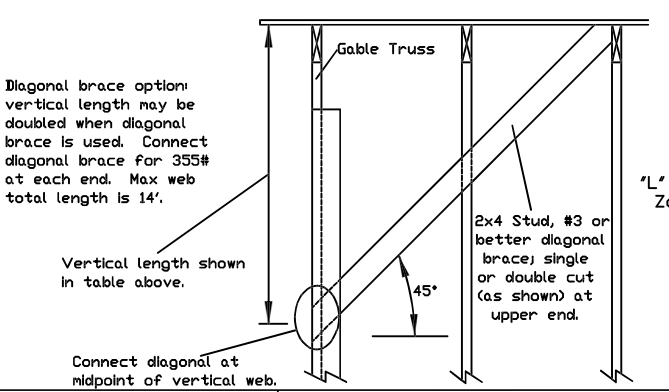
** For (2) "L" braces: space nails at 3" o.c. in 18" end zones and 6" o.c. between zones.

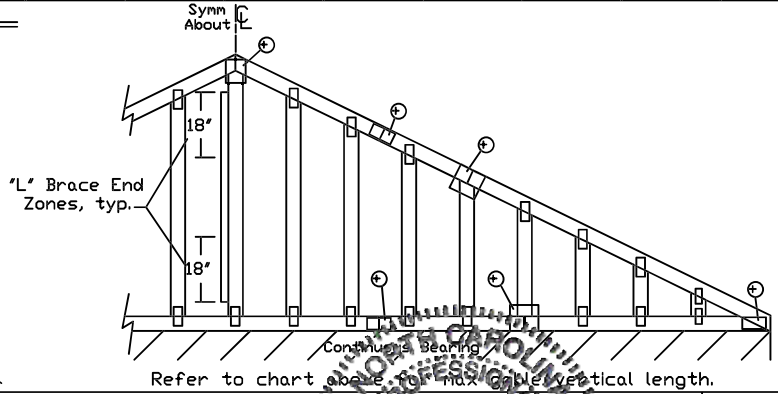
"L" bracing must be a minimum of 80% of web member length.

Gable Vertical Plate Sizes	
Vertical Length	No Splice
Less than 4' 0"	1X4 or 2X3
Greater than 4' 0", but less than 11' 6"	2X4
Greater than 11' 6"	3X4

+ Refer to common truss design for peak, splice, and heel plates.

Refer to the Building Designer for conditions not addressed by this detail.





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NORTH CAROLINA PROFESSIONAL SEAL 033925 ENGINEER DOUGLAS FLEMING

06/13/2023
ABCD Engineering, PLLC NC COA 0838

MAX. TOT. LD. 60 PSF
MAX. SPACING 24.0"

REF	ASCE7-16-GAB11530
DATE	01/26/2018
DRWG	A11530ENC160118

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

ASCE 7-16: 120 mph, 30' Mean Height, Closed, Exposure C
Common Residential Gable End Wind Bracing Requirements - Stiffeners

120 mph, 30ft. Mean Hgt, ASCE 7-16, Enclosed, Exp C, or
100 mph, 30ft. Mean Hgt, ASCE 7-16, Enclosed, Exp D, or
100 mph, 30ft. Mean Hgt, ASCE 7-16, Part. Enclosed, Exp C,
Kzt = 1.00, Wind TC DL=5.0 psf, Wind BC DL=5.0 psf.

Lateral chord bracing requirements
Top: Continuous roof sheathing
Bot: Continuous ceiling diaphragm

See Engineer's sealed design referencing this detail for lumber, plates, and other information not shown on this detail.

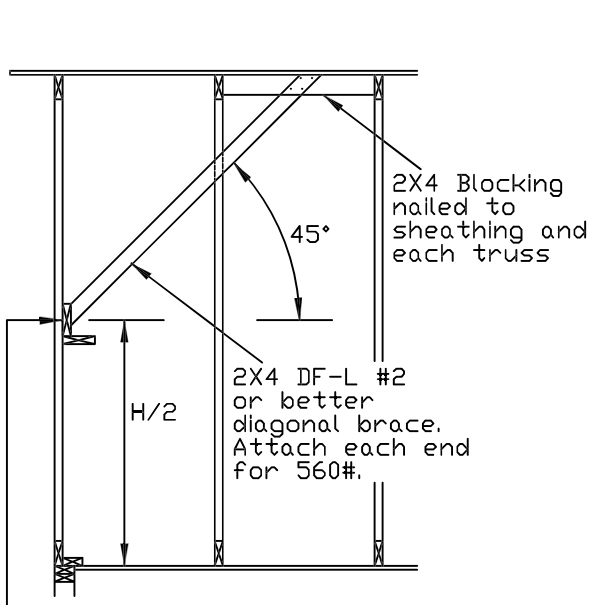
Nails: 10d box or gun (0.128"x3",min) nails.

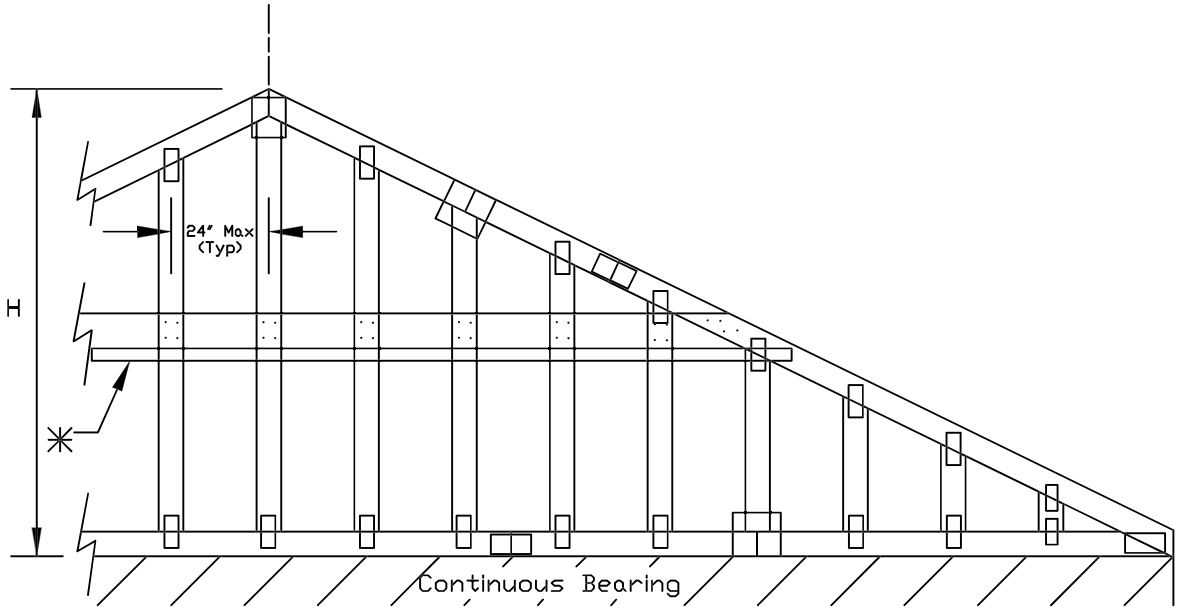
H Less than 4'6" - no stud bracing required

H Greater than 4'6" to 7'6" in length
provide a 2x6 stiffback at mid-height and brace stiffback to roof diaphragm every 6'0" (see detail below or refer to DRWG A12030ENC160118).

H Greater than 7'6" to 12'0" max:
provide a 2x6 stiffback at mid-height and brace to roof diaphragm every 4'0" (see detail below or refer to DRWG A12030ENC160118).

✳ Optional 2x L-reinforcement attached to stiffback with 10d box or gun (0.128" x 3", min.) nails @ 6" o.c.





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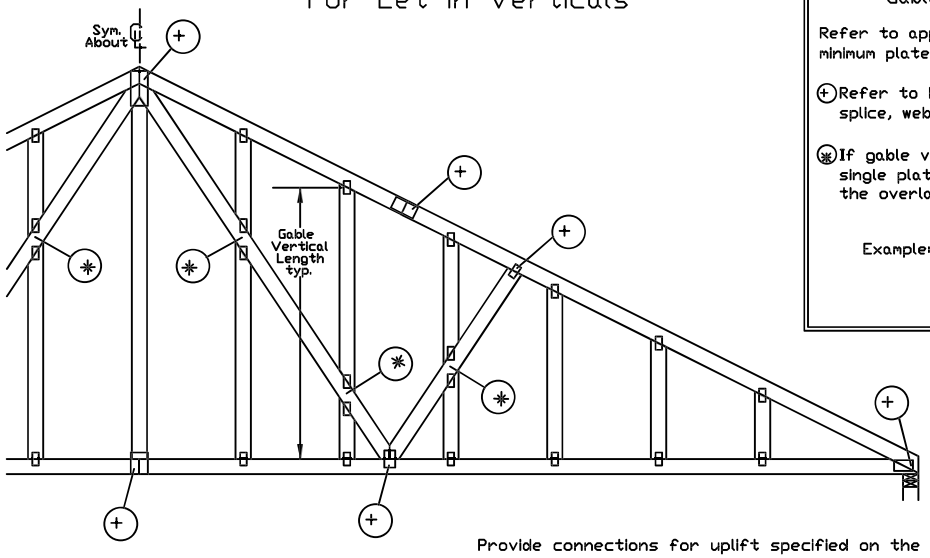
NORTH CAROLINA PROFESSIONAL SEAL 033925 ENGINEER DOUGLAS FLEMING

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

MAX. TOT. LD. 60 PSF
06/13/2023
ABCD Engineering, PLLC NC COA 0838
MAX. SPACING

REF	GE WHALER
DATE	01/02/2018
DRWG	GABRST160118

Gable Detail
For Let-in Verticals



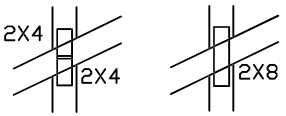
Gable Truss Plate Sizes

Refer to appropriate Alpine gable detail for minimum plate sizes for vertical studs.

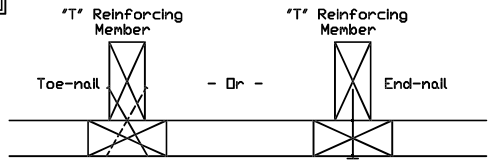
⊕ Refer to Engineered truss design for peak, splice, web, and heel plates.

⊛ If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web.

Example:



"T" Reinforcement Attachment Detail

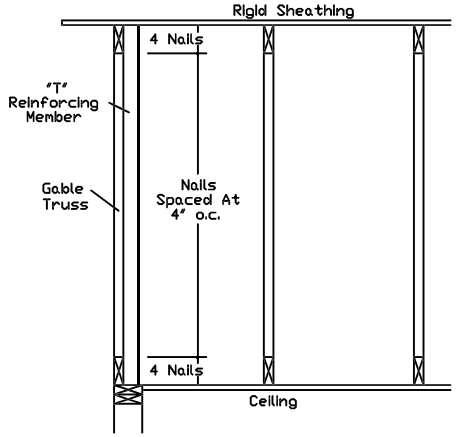


Provide connections for uplift specified on the engineered truss design.

Attach each "T" reinforcing member with

End Driven Nails:
10d Common (0.148"x 3.",min) Nails at 4" o.c. plus
(4) nails in the top and bottom chords.

Toenailed Nails:
10d Common (0.148"x3",min) Toenails at 4" o.c. plus
(4) toenails in the top and bottom chords.



This detail to be used with the appropriate Alpine gable detail for ASCE wind load.

ASCE 7-05 Gable Detail Drawings
A13015051014, A12015051014, A11015051014, A10015051014, A14015051014, A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

ASCE 7-10 & ASCE 7-16 Gable Detail Drawings
A11515ENC100118, A12015ENC100118, A14015ENC100118, A16015ENC100118, A18015ENC100118, A20015ENC100118, A20015END100118, A20015PED100118, A11530ENC100118, A12030ENC100118, A14030ENC100118, A16030ENC100118, A18030ENC100118, A20030ENC100118, A20030END100118, A20030PED100118, S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118, S18015ENC100118, S20015ENC100118, S20015END100118, S20015PED100118, S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118, S18030ENC100118, S20030ENC100118, S20030END100118, S20030PED100118

See appropriate Alpine gable detail for maximum unreinforced gable vertical length.

To convert from "L" to "T" reinforcing members, multiply "T" increase by length (based on appropriate Alpine gable detail).

Maximum allowable "T" reinforced gable vertical length is 14' from top to bottom chord.

"T" reinforcing member material must match size, specie, and grade of the "L" reinforcing member.

Web Length Increase w/ "T" Brace

"T" Reinf. Mbr. Size	"T" Increase
2x4	30 %
2x6	20 %

Example:
ASCE 7-10 Wind Speed = 120 mph
Mean Roof Height = 30 ft, Kzt = 1.00
Gable Vertical = 24'o.c. SP #3
"T" Reinforcing Member Size = 2x4
"T" Brace Increase (From Above) = 30% = 1.30
(1) 2x4 "L" Brace Length = 8' 7"
Maximum "T" Reinforced Gable Vertical Length
1.30 x 8' 7" = 11' 2"

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

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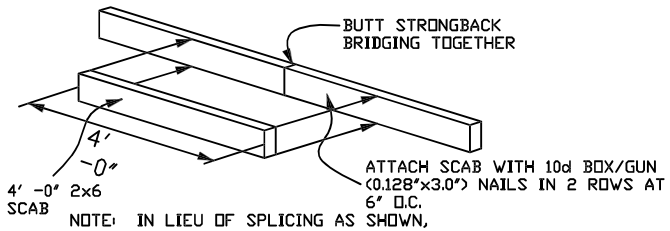
NORTH CAROLINA PROFESSIONAL SEAL 033925 ENGINEER DOUGLAS FLEMING

06/13/2023
ABCD Engineering, PLLC NC COA 0698

MAX. TOT. LD. 60 PSF
DIR. FAC. ANY
MAX. SPACING 24.0"

REF	LET-IN VERT
DATE	01/02/2018
DRWG	GBLLETIN0118

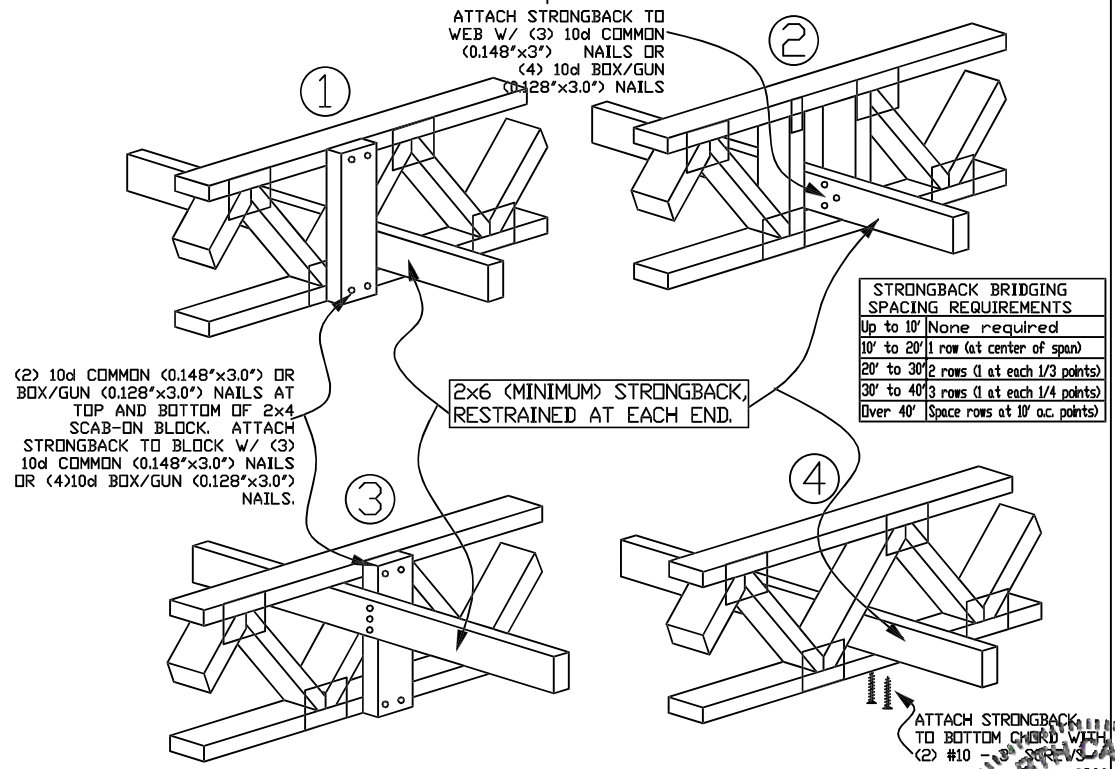
STRONGBACK BRIDGING RECOMMENDATIONS



NOTE: IN LIEU OF SPLICING AS SHOWN, LAP STRONGBACK BRIDGING MEMBERS FOR AT LEAST ONE TRUSS SPACING

STRONGBACK BRIDGING SPLICE DETAIL

NOTE: Details 1 and 2 are the preferred attachment methods



STRONGBACK BRIDGING SPACING REQUIREMENTS	
Up to 10'	None required
10' to 20'	1 row (at center of span)
20' to 30'	2 rows (1 at each 1/3 points)
30' to 40'	3 rows (1 at each 1/4 points)
Over 40'	Space rows at 10' o.c. points)

STRONGBACK BRIDGING ATTACHMENT ALTERNATIVES

- All scab-on blocks shall be a minimum 2x4 "stress graded lumber."
- All strongback bridging and bracing shall be a minimum 2x6 "stress graded lumber."
- The purpose of strongback bridging is to develop load sharing between individual trusses, resulting in an overall increase in the stiffness of the floor system. 2x6 strongback bridging, positioned as shown in details, is recommended at 10' -0" o.c. (max.)
- The terms "bridging" and "bracing" are sometimes mistakenly used interchangeably. "Bracing" is an important structural requirement of any floor or roof system. Refer to the Truss Design Drawing (TDD) for the bracing requirements for each individual truss component. "Bridging," particularly "strongback bridging" is a recommendation for a truss system to help control vibration. In addition to aiding in the distribution of point loads between adjacent truss, strongback bridging serves to reduce "bounce" or residual vibration resulting from moving point loads, such as footsteps.

The performance of all floor systems are enhanced by the installation of strongback bridging and therefore is strongly recommended by Alpine.

For additional information regarding strongback bridging, refer to BCSI (Building Component Safety Information).

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Glenview, IL 60025

WARNING READ AND FOLLOW ALL NOTES ON THIS DRAWING!
IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec2.

For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcacomponents.com; ICC: www.iccsafe.org

NORTH CAROLINA PROFESSIONAL SEAL 033925 ENGINEER DOUGLAS FLEMING

TC LL	PSF	REF STRONGBACK
TC DL	PSF	DATE 10/01/14
BC DL	PSF	DRWG STRBRIBR1014
BC LL	PSF	
TOT. LD.	PSF	
DUR. FAC.	1.00	
SPACING		

06/13/2023
ABCD Engineering, PLLC NC COA 0838

Commentary: Deflection and Camber

Camber may be built into trusses to compensate for the vertical deflection that results from the application of loads. Providing camber has the following advantages:

- Helps to ensure level ceilings and floors after dead loads are applied.
- Facilitates drainage to avoid ponding on flat or low slope roofs.
- Compensates for different deflection characteristics between adjacent trusses.
- Improves appearance of garage door headers and other long spans that can appear to "sag."
- Avoids "dips" in roof ridgelines at the transition from the gable to adjacent clear span trusses.

In accordance with ANSI/TPI 1 the Building Designer, through the Construction Documents, shall provide the location, direction, and magnitude of all loads attributable to ponding that may occur due to the design of the roof drainage system. The Building Designer shall also specify any dead load, live load, and in-service creep deflection criteria for flat or low-slope roofs subject to ponding loads.

The amount of camber is dependent on the truss type, span, loading, application, etceteras.

More restrictive limits for allowable deflection and slenderness ratio (L/D) may be required to help control vibration.

The following tables are provided as guidelines for limiting deflection and estimating camber. Conditions or codes may exist that require exceeding these recommendations, or past experience may warrant using more stringent limitations.

L = Span of Truss (inches)
D = Depth of Truss at Deflection Point (inches)

Recommended Truss Deflection Limits

Truss Type	L/D	Deflection Limits	
		Live Load	Total Load
Pitched Roof Trusses	24	L/240 (vertical)	L/180 (vertical)
Floor of Room-In-Attic Trusses	24	L/360 (vertical)	L/240 (vertical)
Flat or Shallow Pitched Roof Trusses	24	L/360 (vertical)	L/240 (vertical)
Residential Floor Trusses	24	L/360 (vertical)	L/240 (vertical)
Commercial Floor Trusses	20	L/480 (vertical)	L/240 (vertical)
Scissors Trusses	24	0.75" (horizontal)	1.25" (horizontal)

Truss Type	Recommended Camber
Pitched Trusses	1.00 x Deflection from Actual Dead Load
Sloping Parallel Chord Trusses	1.5 x Vertical Deflection from Actual Dead Load
Floor Trusses	(0.25 x Deflection from Live Load) + Actual Dead Load
Flat Roof Trusses	(0.25 x Deflection from Live Load) + (1.5 x Design Dead Load Deflection)

Note: The actual dead load may be considerably less than the design dead load.

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06/13/2023
ABCD Engineering, PLLC NC COA 0838

REF	DEFLEC/CAMB
DATE	10/01/14
DRWG	DEFLCAMB1014

Gable Stud Reinforcement Detail

ASCE 7-16: 115 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Max Gable Vertical Length

2x4 Gable Vertical Spacing	Species	Brace Grade	No Braces	(1) 1x4 "L" Brace *		(1) 2x4 "L" Brace *		(2) 2x4 "L" Brace **		(1) 2x6 "L" Brace *		(2) 2x6 "L" Brace **	
				Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
24" o.c.	SPF HF	#1 / #2	4' 11"	8' 5"	8' 9"	9' 11"	10' 4"	11' 10"	12' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 8"	8' 1"	8' 7"	9' 10"	10' 3"	11' 9"	12' 2"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	4' 8"	8' 0"	8' 6"	9' 10"	10' 3"	11' 9"	12' 2"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	4' 8"	6' 11"	7' 4"	9' 2"	9' 10"	11' 9"	12' 2"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	5' 2"	8' 7"	8' 10"	10' 1"	10' 6"	12' 0"	12' 5"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	4' 11"	8' 5"	8' 9"	9' 11"	10' 4"	11' 10"	12' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 10"	7' 3"	7' 9"	9' 8"	10' 3"	11' 9"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	4' 10"	7' 3"	7' 9"	9' 8"	10' 3"	11' 9"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	4' 8"	6' 5"	6' 10"	8' 7"	9' 2"	11' 7"	12' 2"	13' 5"	14' 0"	14' 0"	14' 0"
16" o.c.	SPF HF	#1 / #2	5' 8"	9' 8"	10' 0"	11' 5"	11' 10"	13' 7"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	5' 5"	9' 6"	10' 0"	11' 3"	11' 8"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	5' 5"	9' 6"	9' 10"	11' 3"	11' 8"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	5' 5"	8' 5"	9' 0"	11' 3"	11' 8"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	5' 11"	9' 9"	10' 2"	11' 6"	12' 0"	13' 8"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	5' 8"	9' 8"	10' 0"	11' 5"	11' 10"	13' 7"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	5' 6"	8' 11"	9' 6"	11' 4"	11' 9"	13' 6"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	5' 6"	8' 11"	9' 6"	11' 4"	11' 9"	13' 6"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	5' 5"	7' 10"	8' 4"	10' 6"	11' 2"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
12" o.c.	SPF HF	#1 / #2	6' 3"	10' 7"	11' 0"	12' 7"	13' 0"	13' 7"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	5' 11"	10' 6"	10' 10"	12' 5"	12' 10"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	5' 11"	10' 6"	10' 10"	12' 5"	12' 10"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	5' 11"	9' 9"	10' 5"	12' 5"	12' 10"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	6' 6"	10' 9"	11' 12"	12' 8"	13' 2"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	6' 3"	10' 7"	11' 0"	12' 7"	13' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	6' 1"	10' 3"	10' 11"	12' 6"	12' 11"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	6' 1"	10' 3"	10' 11"	12' 6"	12' 11"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	5' 11"	9' 1"	9' 8"	12' 1"	12' 10"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"

Bracing Group Species and Grades:

Group A:

Spruce-Pine-Fir	
#1 / #2	Standard
#3	Stud

Hem-Fir	
#2	Stud
#3	Standard

Douglas Fir-Larch
#3
Stud
Standard

Southern Pine***
#3
Stud
Standard

Group B:

Hem-Fir
#1 & Btr
#1

Douglas Fir-Larch
#1
#2

Southern Pine***
#1
#2

1x4 Braces shall be SRB (Stress-Rated Board).

***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

Provide uplift connections for 30 plf over continuous bearing (5 psf TC Dead Load).

Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12" plywood overhang.

Attach "L" braces with 10d (0.128"x3.0" min) nails.

* For (1) "L" brace: space nails at 2" o.c. in 18" end zones and 4" o.c. between zones.

** For (2) "L" braces: space nails at 3" o.c. in 18" end zones and 6" o.c. between zones.

"L" bracing must be a minimum of 80% of web member length.

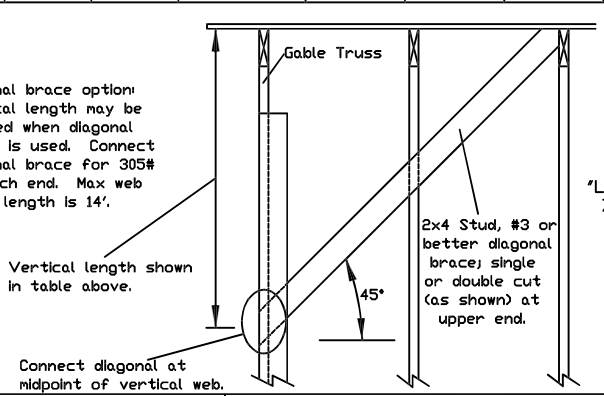
Gable Vertical Plate Sizes

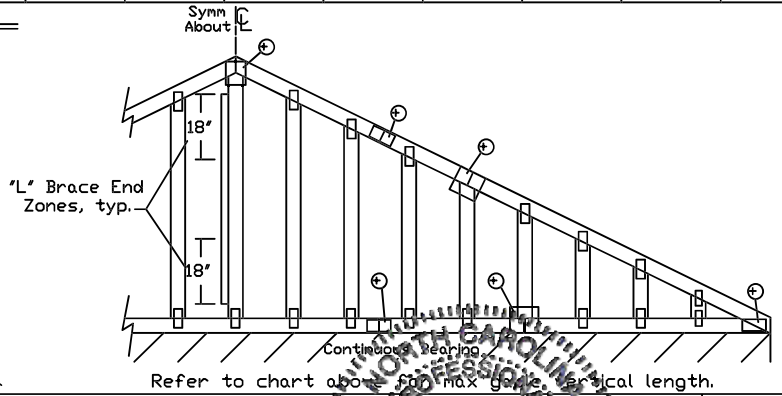
Vertical Length	No Splice
Less than 4' 0"	1X4 or 2X3
Greater than 4' 0", but less than 11' 6"	2X4
Greater than 11' 6"	3X4

+ Refer to common truss design for peak, splice, and heel plates.

Refer to the Building Designer for conditions not addressed by this detail.

Diagonal brace option: vertical length may be doubled when diagonal brace is used. Connect diagonal brace for 305# at each end. Max web total length is 14'.





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NORTH CAROLINA PROFESSIONAL SEAL 033925 ENGINEER DOUGLAS FLEMING

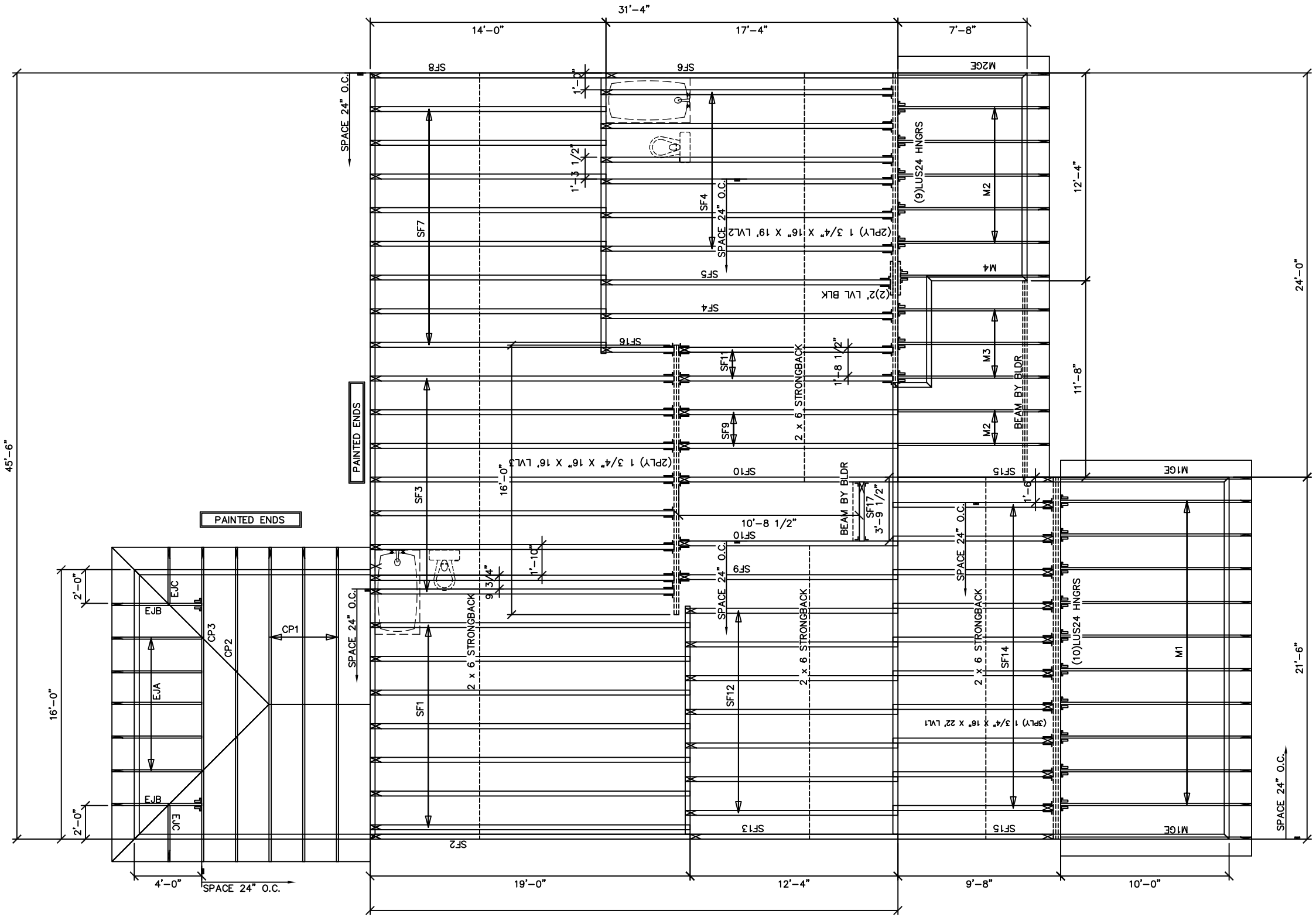
06/13/2023

ABCD Engineering, PLLC NC COA 0838

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

REF	ASCE7-16-GAB11515
DATE	01/26/2018
DRWG	A11515ENC160118



GARAGE LEFT

GENERAL NOTES

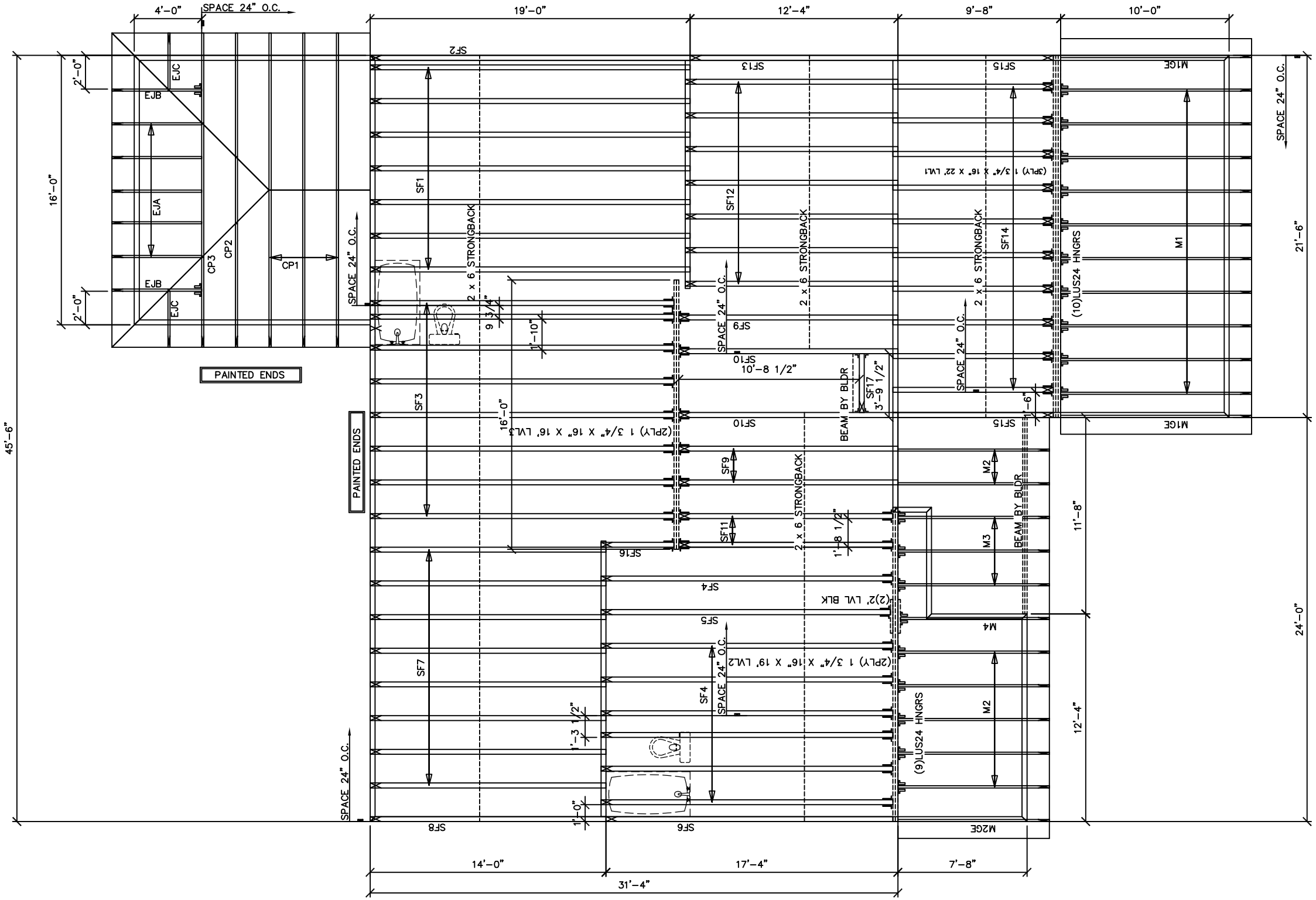
1. This placement plan is intended to aid in the installation of trusses. Refer to sealed truss drawings for addional information.
2. All parallel chord trusses have the top chord partially painted to be installed painted side up.
3. All truss spacing 24" o.c. unless noted otherwise.
4. Per Trus Plate Institute BSCI–B1 recommendation, permanent X–bracing should be installed at a maximum spacing of 15' o.c. across the span, to be repeated at a maximum of 20' between each X–brace throughout the structure.
5. Provide solid blocking to foundation or steel under all girders and cripples.

[redacted]

[redacted]

CARPENTER CONTRACTORS OF AMERICA
190 GILLIS HILL RD.
FAYETTEVILLE, NC 28306
PHONE: (910) 875–7575
FAX: (910) 875–5419

DESIGNER: WEB	BUILDER: ADAMS HOMES
DATE: 06.13.23	PROJECT: VARIOUS
SCALE: NTS	BLDR MODEL: 3130 ELEVATION B
LAN# 76391	CCA PROJ/MDL: 1L1/3130B(03)
	LOAD#: R/01
Truss Qty.=172	(03) = 16' X 14' COVERED PORCH
	CAROLINA SEASONS 5



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GARAGE RIGHT

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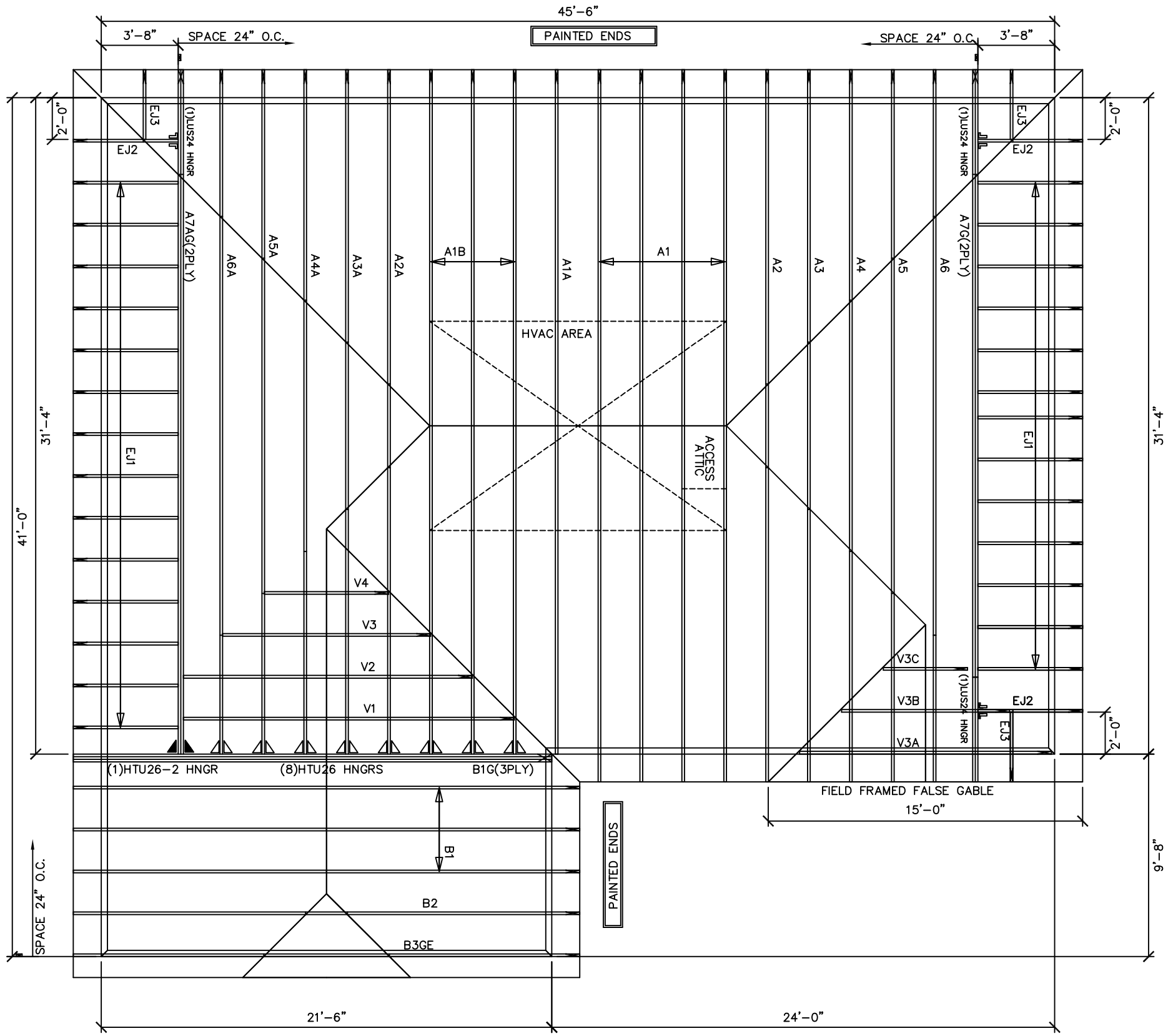
LAN# 76391	CCA PROJ/MDL: 1L1/3130B(03)
	LOAD#: R/01
Truss Qty.=172	(03) = 16' X 14' COVERED PORCH
	CAROLINA SEASONS 5



GARAGE LEFT

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[redacted]

[redacted]

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LAN# 76391	CCA PROJ/MDL: 1L1/3130B(03)
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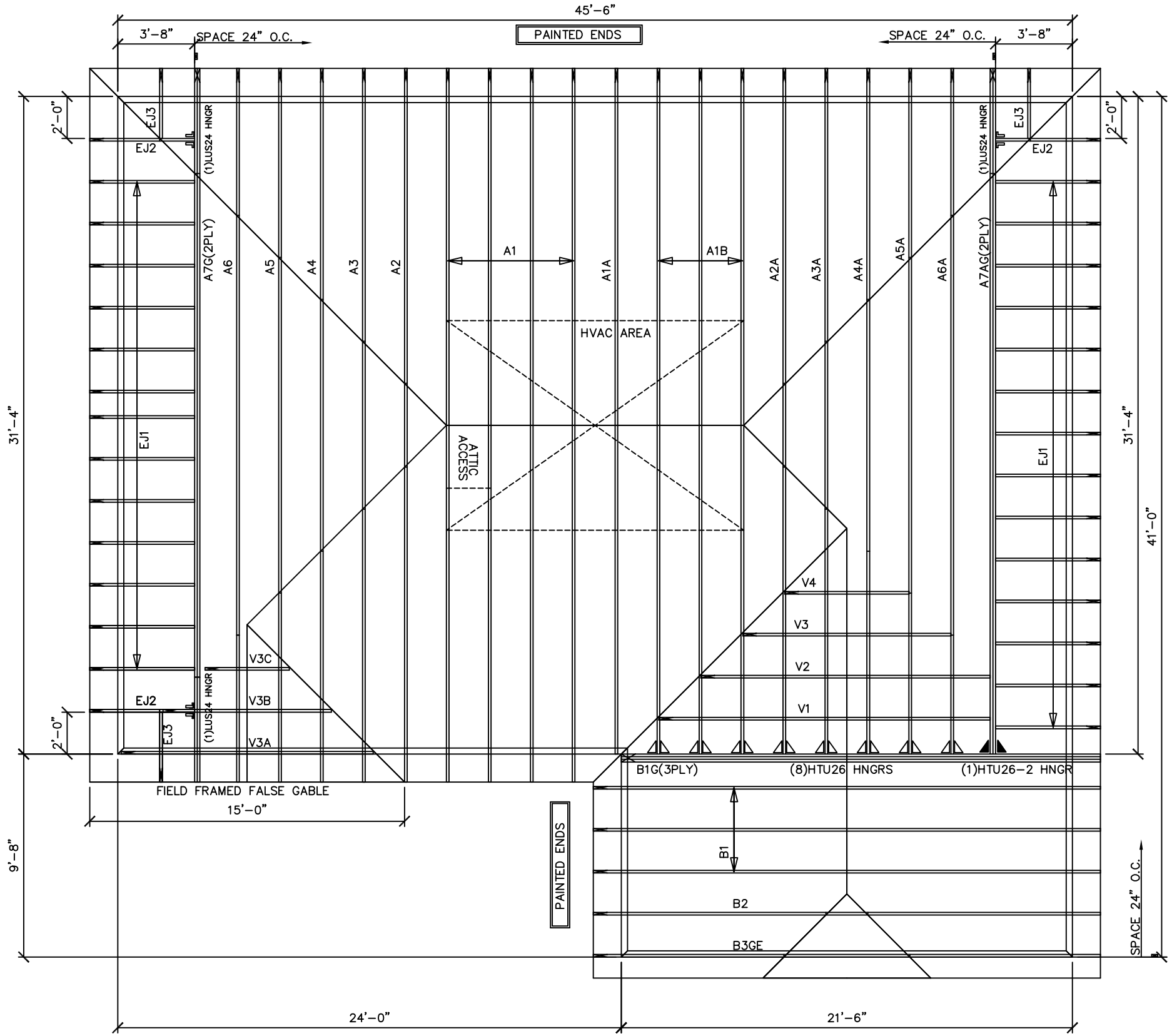
Truss Qty.=172	(03) = 16' X 14' COVERED PORCH

CAROLINA SEASONS 5



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